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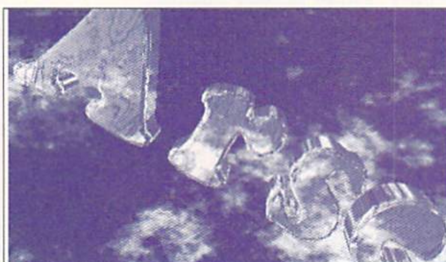
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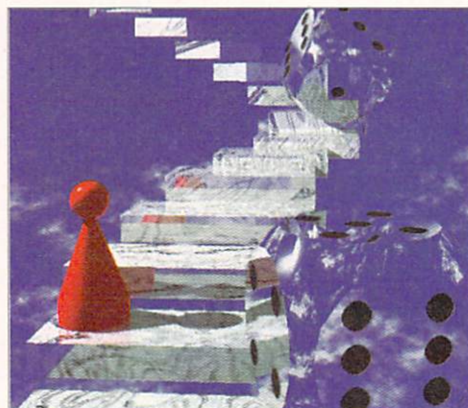
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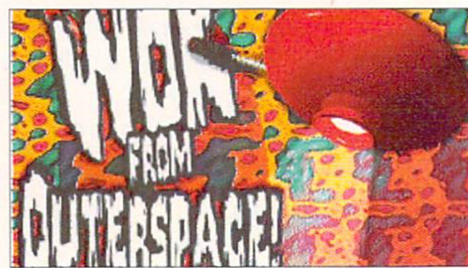






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amiga comment

A Fond Farewell

Tina Hackett reminisces over the changes she's seen in her three years with Amiga Computing

It's a sad day - I'm off into the big wide world and leaving Amiga Computing. Don't get me wrong - it's not because of the magazine or anything to do with the Amiga market (although believe me, the current situation with the Amiga has certainly tried my patience). I'm off to find my fortune in the big smoke along with Jerry Lighthouse (or whatever his name is).

Don't worry though - in the Editor's chair will be Neel Morhe (or however you spell it) who I'm sure will take care of you all. Anyway, the point of this Editorial is not to give way to a bout of self-indulgence but to reminisce over the changes I've seen in just three years with Amiga Computing (and three years is a relatively short time in the lifespan of Amiga).

I started back in October 1993, complete with shiny shoes and spoddy suit. The first magazine I worked on was the January 1994 issue and in the news it was announced that despite Commodore substantially slashing its operating costs, it still continued to lose money. Several European offices were closed and a financial statement said that the firm's financial position and operating results raised concerns about its ability to continue as a going concern. Joint Commodore MD, Colin Proudfoot said however, that he was confident the success of the CD32 would put the company back into profit...

This was not to be, as we soon discovered. Although the CD32 captured 38 per cent of the CD market its success was short lived. Our games team discovered that many CD32 releases were merely port-overs from their disk counterparts. During this period, I was quite happily ripping apart games like Allo Allo (a decidedly unfunny license from the decidedly unfunny TV series) as well as doing screen grabs for Amiga classics such as Mortal Kombat and Cannon Fodder.

The Commodore saga continued and soon the company was filing for liquidation. The uncertainty went on for some time and it wasn't until 1995 that a final solution was announced. Or so we thought, because Escom had beaten all other contenders to get hold of the Amiga technology.

Amiga owners could breathe a sigh of relief. Whilst all this was happening Europress, publishers of Amiga Computing, had sold the publishing side of its business to the International Data Group. I, meanwhile, was meeting up with the Stockport County Football Team to meet head-to-head in a Sensible Soccer tournament. I lost, and went back to the office, shame-faced.

The Magic Pack appeared and proved a disappointment. Life continued at Amiga Computing and I reported on the Amiga being used at Eureka, the Children's museum, and also get to go to the Imperial War Museum - who says the job has no perks? Development of the Walker (which would have looked something between a toaster and a radio) was announced but doesn't see the light of day.

The staff at AC change-over time - Stevie Kennedy, Paul Austin, Adam Phillips and Gareth Lofthouse all move over to our sister magazine, The Web, and we welcome in Mr Mohr, Mr Vost, Mr Maddock (Junior) and Mr Poynton. The magazine also saw various redesigns to keep it up-to-date - in three years our games section has been Gamer, then System and now Amiga Action.

In May 1996 Mr Vost left us and I took over at the helm of the good ship Amiga Computing. It was also another exciting period in the Amiga's turbulent history. American company, VIScorp, had stated that it wanted to buy the Amiga and a Letter of Understanding had been signed with Escom - unfortunately, Escom went bust before the deal was ever completed. At the time of writing, still no saviour for the Amiga has appeared - although QuikPak is still in the running.

Before I sign off though I would just like to say a big thanks to all the people I have worked with and of course, to you dear readers. Oh, and obviously, my Mum, Dad (who've read every issue!!), cat, hamster,

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news

By Tina Hackett

Amiga Rejuvenated

Monday 20 January saw the Independent Amiga Rejuvenation Survey being launched. The survey will be up and running until the 3o March and then the entries will be processed. To access the survey go to: http://www.skip.adb.gu.se/~gunnar/iars

Response has been favourable so far with prominent Amiga people such as Wolf Dietrich of Phase5 saying of IARS: "Phase 5 Digital Products appreciates very much the independent efforts of engaged Amiga community members to support the planning of the future of the Amiga.

The IARS project seems to be an excellent means to collect and analyse the views and opinions of Amiga users all over the world. We are looking forward to seeing the results which shall be compiled in "The Independent Amiga Rejuvenation White Book", and expect this compilation to be a source of additional information and inputs that can support our goal of designing the dream machine that the users want. We hope the IARS project is successful and gets the response from users worldwide that it deserves."

The project aims to find out your views and ideas concerning the future of the Amiga with topics such as what hardware specifications you would like to see and also what made the Amiga so successful.

Vivid Imagination

Impulse has announced a new version of Imagine for the Amiga. Version 5 includes new features such as ARexx and CyberGraphix support. The company is determined to keep support for this platform, and the product, alive and is offering customers the chance to buy Imagine 5.0 for $100 plus $10 shipping. UK/EC customers should contact Infologic for more details on 004 6675 5594.

Showing in Sweden

Sweden plays host to this year's largest Amiga convention in Scandinavia. Called AmiTech '97, it is organised by AUGS (Amiga User Group of Sweden) and SUGA (Swedish User Group of Amiga)
and their main sponsor is Distribution 4, the new leading Amiga computer and peripherals distributor of Scandinavia. It takes place on Friday 25 April 1997, Saturday 26 April 1997 and Sunday 27 April in Wasahallarna, at the Royal Djurgarden in central Stockholm.

Go to http://www.canit.se/amitech/ for more information.

News Hound Hugh

Congratulations to Hugh Poynton who now becomes our News Editor. Please address all news correspondence to him and don't forget to tip him off on any scoops! The address is Amiga Computing NewsDesk, IDG Media, Media House, Adlington Park, Macclesfield, Cheshire SK10 4NP.

Personal Paint 7 Developments

Due to the release of the new CPU blitting module which is now available on Aminet (biz/cloan/PBlit_68K.lha), Cloanto has made its Personal Paint 7 the first Amiga program to actively exploit the full functionality of both the Graphics library and the Amiga blitter applied to bitmaps stored in Fast RAM.

Michael Battilana from Cloanto commented, "Normally, two crucial parts of the Amiga system require bitmap data to be stored in Chip RAM: The original (Agnes) blitter chip and the Graphics library. Personal Paint uses both, which until now meant that it had to store in Chip RAM at least the bitmaps currently being manipulated. Thanks to its modular design, Personal Paint 7 already implemented a "virtual blitter" which optionally used the CPU instead of the Agnes chip. The module just released extends this capability by implementing a faster 32-bit blitter (the Amiga blitter works in 16 bits)."

The developers at CyberGraphX have completely rewritten the Amiga's original graphics library so that the Amiga is not reliant on just using Chip RAM, but can now use all the Amiga's memory to store and manipulate graphics data.



Cloanto worked in conjunction with CyberGraphX to make this possible. Mr Battilana said, "The efforts of the CyberGraphX and Cloanto programmers have finally made a dream come true for many Amiga users who had plenty of Fast RAM but never enough Chip RAM."

More information is available at the Cloanto Web site at http://www.cloanto.com/.

BONJOUR INTERNET

Eloquence has announced the launch of the first on-line language course. The first is "La Connexion Francaise" and is available entirely through the World Wide Web. It is subscription based and aims to take beginners to a high standard. Go to http://www.elok.com/ for more information



Brush up on your French skills with "La Connexion Francaise"

ROOM FOR A VIEW?



ViewSonic has upgraded its economy monitor series by including features not normally found in these types of monitors. For example, this means that the 14" colour monitor, E641, now has digital controls and a high 86Hz refresh at 800 x 600.

The ViewSonic E655 which supersedes the 15ES now has OnView controls and a flat square screen. Both of these new models will have an anti-glare, anti-static screen as well as reduced heat emissions and power consumption.

ViewSonic upgrade its economy monitors such as the E641

SMALL WORLD

Netcom has reached an agreement with AimQuest Corporation (founders of GRIC – the largest alliance of ISP's and Telcos who are trying to set up commercially viable global Web services). This agreement means Netcom's current roaming services will be extended. At the moment customers in Canada, US and UK have unlimited access across these countries. Now though, customers can access the Internet through over 40 other GRIC member ISP's and Telcos around the world in countries such as Singapore, Japan, China, Malaysia, Switzerland and Spain.

Customers can access these other ISP's in much the same way as a bank network which allows customers access to their ATM machines. Brian MacDonald, Managing Director of Worldwide Development at Netcom said, "Research has shown us that international business travellers need an easy-to-use familiar way to connect to the Internet that doesn't compromise quality and convenience." He continued, "Through this agreement with AimQuest, Netcom is able to provide these professionals with a reliable and cost-effective global Internet solution."

PD PROBLEM

Public Domain software is causing concern to trade body, ELSPA after a recent discovery of a program that would be considered in bad taste. According to ELSPA, the industry's good work of self-regulation could be undone and although they have tried distancing themselves from PD titles, the worry is that the media see it as just another computer game.

As we reported previously, the media were alerted after the discovery of a game called Schoolyard Slaughter which involved shooting children as they crossed the playground.

Commercial computer games differ from PD games in that they are regulated by the Video Standards Council and the VSC has stated that it would ban such a title. The problem for the public now however, is how do they protect their children from such unacceptable titles? Some kind of regulation has to be put in place to ensure that this grey area is covered by some classification system.

NO TO THE INTERNET

The Millennium Commission has said no to the Internet. According to Mike Farrow who had his Internet project turned down, the Commission, in its third round of Internet funding, has not listed one Internet project even though they are the only Lottery body which are allowed to accept projects with a significant Internet content.

Mr Farrow asked the Acting Chief Executive of the Millenium Commission if he thought the Internet represented a significant moment in our history to which he replied, "Not for this country, it was important for the Americans." When turned down, Mr Farrow wrote to many MP's and received nearly a hundred letters of support.

FREEBIE AMIGA

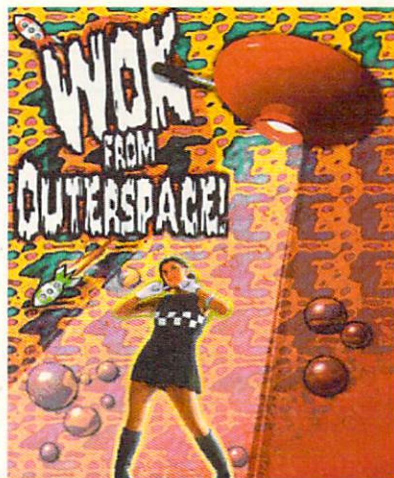
If you're broke after Christmas don't fear. Not only does Gareth Lofthouse give you the best ways to get free software, support and advice in this month's feature, "The Great Giveaway" but a new site has also been set up to provide quality Freeware for Amiga users.

Whether or not it succeeds depends on you lot sending in suggestions or any Amiga Freeware you have written. The only two rules are that they must be Freeware and they must be high quality. It's called ACES (Amiga Coding Excellence Scheme) and they have compiled a list of things that make programs worth using. These are:

- Font sensitive GUI
- Keyboard shortcuts in windows
- Re-sizeable windows (if at all possible – good on big screen modes)
- AREXX port
- Amigaguide help (on-line is obviously better)
- An Installer script (or a drag & drop type installation)

These are not strict rules though – so please send any suggestions to aces@cyberservices.com

Getting free software for your Amiga – the easy way, with our cover feature and a new Web site



MORE AWARDS

Timothy Berners-Lee, inventor of the World Wide Web, has had another honour bestowed upon him. He received the Institute of Physics' Duddell Medal for his, "Outstanding contribution to the advancement of knowledge by the invention of the networked information system known as the World Wide Web." It was awarded by Dr Godfrey Stafford at the two day meeting of the World Wide Web consortium (W3C). W3C aims to continue development of the Web including improving underlying protocols used by the web as well as advancing the User Interface to take into account the needs of the disabled.

CROSS WORDS

According to a recent newsgroup discussion, a USA newspaper printed a crossword with the following clue in it: "Bygone computer – five letters". And the answer – apparently it's an Amiga!!! Ooops! Surely – they mean Atari?

AAHH!

The Bloomberg newsroom in Chicago printed a story about the Amiga which would have brought a tear to the eye of any Amigan. In the article, it told the legend that when Jay Miner was inventing the Amiga his dog would have to wag his tail in approval for a particular design to go ahead.

The report told the tale of Amiga's trials and tribulations as well as pointing out the loyalty of the users saying that "Tens of thousands of enthusiasts remain so smitten by Miner's elegant machine that they're waiting out the companies turmoil and patching their ageing computers rather than succumb to the Microsoft Corp/Intel Corp duopoly..." – and quite rightly so!

BEST BETT

Bett '97, the Educational Technology Show, proved a great success despite the Arctic conditions which hit London. There was a significant rise in overseas visitors which will establish Bett as the international forum for educational IT. Rt. Hon Gillian Shephard MP, in her opening speech, called for greater IT investment in education and outlined the Government's plans to provide schools with state-of-the-art multimedia solutions. However, David Blunkett MP called for the games console industry to develop educational material for families who can't afford expensive PCs.

PRINT PERFECTION

Epson has announced that it is bringing out the worlds first 1440 dpi colour inkjet printer. Called the Epson Stylus Color 600, it is aimed at both the home and business user and is priced at £280 excluding VAT.

The company is also launching an Epson Stylus Color 400 inkjet printer. It prints at 720 dpi and is priced at £227 excluding VAT. Amiga users should be able to use these printers by getting hold of some third party software. such as TurboPrint.

classifieds

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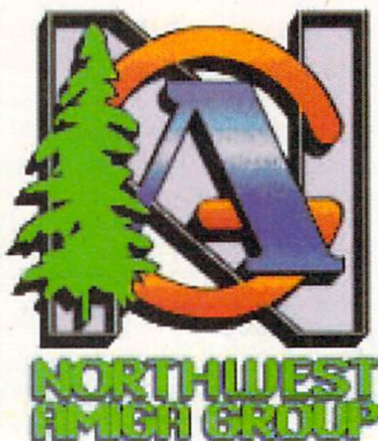


Bumper Prizes

The Northwest Amiga Group is holding a raffle, tentatively scheduled to take place on February 25. First prize in this raffle is an A4060T with has 10 megs of RAM and 850 megs of hard drive space. An Amiga Technologies Software bundle is also included.

Second prize is a 100 meg Iomega ZIP drive with one free cartridge and third prize, a $50US gift certificate to AmiTech Electronics, an Amiga dealer. Tickets are $5US each. For more information, check www.rdrop.com/users/bern/raffle/, or send e-mail to ini@aracnet.com.

The Northwest Amiga Group headquarters are in Portland, Oregon. General meetings are held on the fourth Tuesday of every month at 7:00pm. More information on the group can be found at http://www.aracnet.com/~bern/NAG/.





by **Katherine Nelson**

Freebie Tape

Nova Design, Inc. is now shipping its demo videotape for its ImageFX and Aladdin4D products. This tape is free to all Amiga, Video Toaster/Flyer and Amiga software dealers or stores, as well as Amiga user groups. The tape is also free to be copied and further distributed.

Dealers and user groups may contact Nova Design, Inc. to receive the videotape at (804) 282-5868, or write to: Nova Design, Inc., 1910 Byrd Avenue, Suite 204, Richmond, VA 23230, USA. Hours are Monday through Friday, between 1pm and 5pm Eastern (New York) time. User groups must add Nova Design to their newsletter mailing list and supply one to Nova prior to receiving the tape.

Anyone else wishing to obtain one of the ImageFX/Aladdin4D demo tapes may either copy one or order one from Nova Design for $10US, plus $5US for shipping outside of the US. Call (804) 282-1157 between 1pm and 4pm, Eastern time. Nova Design, Inc. urges Amiga users to see the tape and find out more about these two products.

New Vantage

The Vantage Point, an Illinois based video production company which uses Amigas, Toaster systems and the DraCo for its editing and special effects, has announced its new Web site. The site is currently accessible, but it is expected to undergo some additions and refinements through the month of February.

One such addition is expected to be a gallery of stills from previous projects, possibly including shots from the ImageFX/Aladdin4D demo video commissioned by Nova Design, Inc. Nova Design's ImageFX software was also employed in the creation of some of the graphics used throughout the Vantage Point Web site.



Show Offs

The Gateway Computer Club, Inc. announced its three newest exhibitors and attendees to the Gateway Computer Show - Amiga 97. Amiga Report Magazine, Compuquick Media Centre and NewTek, Inc. join Nova Design, Inc, Oregon Research, QuikPak, OZware, Intangible Assets Manufacturing, Silent Paw Productions, Inc. and SoftLogik Publishing Corporation in committing their attendance to the show.

The Gateway Computer Show - Amiga 97 will take place 15 and 16 March at the Harley Hotel in St. Louis, Missouri. The hotel is located about seven minutes away from the St. Louis Lambert Airport and will have a special show rate. Show times are Saturday 11am until 5pm and Sunday 11am to 4pm, although people are cautioned that special classes may begin earlier or end later. There is no information yet on the types or numbers of classes, although it is rumoured that NewTek will be hosting at least one.

Show information can be obtained by mailing bscharp@icon-stl.net, or visiting http://www.icon-stl.net/~jwwilson/GAC/show.html. The Gateway Amiga Club can be contacted by e-mail at barryh@crl.com, or by postal mail at: Gateway Amiga Club, PO Box 811, Bridgeton, MO 63044, USA.

QuickPak's final bid for Amiga

QuikPak has entered what it calls a final bid for the Amiga technology as of 31 January 1997. QuikPak states that, according to the US legal counsel for Mr. Hembach, the deadline for the submission of bids was 31 January. It also states that the winning bid is expected to be chosen by the end of February. Reaction from the Amiga community is best summed up by a caption on the Amiga Web Directory for the QuikPak press release: "Here we go again!"

Base Upgrade

Mr. Hardware Computers of Central Islip, New York, has announced a special upgrade price for owners of previous releases of SBase4 or SBase4Pro Amiga, to SBase4Pro v1.30n. This version includes bug fixes and new features not present in older versions.

Upgrade prices depend on the version currently owned. Owners of SuperBase Amiga of any version can upgrade for $60US, owners of SBase4 Amiga of any version can upgrade for $50US. The upgrade from SuperBase Professional Amiga of any version costs $30US and the upgrade from SBase4Pro Amiga version 1.30m or older, costs $20US. Sales of these upgrades will aid in the further development of the SBase4 package.

Mr. Hardware Computers is working on an expanded new version of SBase4, but does not yet have a release date. Contact the company by phone on 516-234-8110, by e-mail at hardware@li.net or by BBS at 516-234-6046.

Contact Point

The Northwest Amiga Group
WWW: http://www.aracnet.com/~bern/NAG/

Bob Scharp, Chairman
Gateway Computer Show - Amiga 97
WWW: http://www.icon-stl.net/~jwwilson/GAC/show.html
Email: bscharp@icon-stl.net

The Vantage Point
Phone: 773-465-5158
E-mail: bohus@xnet.com
WWW: http://www.xnet.com/~bohus/

Mr. Hardware Computers
Phone: 516-234-8110
Email: hardware@li.net
BBS: 516-234-6046

QuikPak
Email: QPInfo@ix.netcom.com quikpak@ix.netcom.com

Bob Fisher
Nova Design, Inc.
1910 Byrd Avenue, Suite 204
Richmond, VA 23230 USA
Phone: 804-282-5868
FAX: 804-282-3768

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2.05 ROM (V37.350) (A500 & A2000)	$19.95
2.04 ROM A3000 (Set of 2 Rom 0/1)	$34.50
2.1 Workbench for floppy users (complete O/S without support file)	$7.95
3.1 ROM (A500/A2000)	**$49.95**
3.1 ROM (A3000/A4000)	**$62.50**
3.1 ROM (A1200)	$62.50
3.1 ROM(s) Software/Manual	$124.00/$137.50
ROM Switch/Switch-Itt with speaker	$17.50
3.1 manual only	$69.95
3.1 Software	$10.00
3.1 Workbench for floppy users (complete O/S without support file)	$7.95
A2091 7.0 ROM Upgrade	$19.95
A2620/30 7.0 ROM Upgrade	$19.95
8520 CIA	$11.95
8372A/8375 Agnus with diagnostic disk/guide	$29.95
8375-B (2MB) (A3000) 318069-03	**$25.50**
8375-10 Agnus (318069-10) PAL	$17.95
8375-18 Agnus (318069-18) 2 meg PAL	$15.95
Paula (8364) A500/A2000	$10.95
Denise (8362) A500/A2000	$10.95
Super Denise 8373 w/diagnostic disk	$19.95
Gary 5719 A500/A2000	$10.95
Buster 5721 (A2000)	$16.95
68000-8MHz CPU (DIP)	$11.50
68000-16MHz CPU (DIP)	$22.50
68030-RC50 PGA	$84.50
68882-25 PGA	$24.95
Western Digital SCSI chip 8A	$24.95
Video Hybrid - (A500 390229-03)	$9.95
GVP Upgrade Chip Series II	$29.95

SURFACE MOUNTED DEVICES (For A1200, A3000, A4000, CD32)

Item	Price
8520 PLCC (391078-02)	$19.50
Amber (390538-03)	$24.50
DMAC 4 (390537-04)	$34.50
Lisa (391227-01)	$24.50
Ramsey (rev.4) 390544-04	$19.95
Ramsey (rev. 7) 390541-07	$36.50
Alice 8374 (391010-01)	$25.50
Gal (XU9) (390123-01))	$21.95
Gayle (315107-02)	$19.95
Budgie (391425-01)	$33.95
Super Denise (391554-01)	$29.95
Paula 8364 (391077-01)	$27.95
Gary (390540-02)	$32.95
Super Buster Rev. 11 (390539-11)	**$34.50**
Bridgette (391380-01)	$29.50
Video DAC (391422-01)	$19.95
68000CPU (390084-07)	$13.95
68020-16 (391506-01)	$18.95
MC 68882RC25A PGA New (390434-01)	$19.95
MC 68882RC20A PGA	$30.00
MC 68882RC33A PGA	$37.50
XC 68882RC40A PGA	$69.95
MC 68030FE25B QFP (390399-05)	$19.95
MC 68030RC50 PGA	$79.95

MOTHERBOARDS (Factory New)

Item	Price
CD32 (no RAM memory) NTSC	$89.95
CD32 complete with RAM/tested NTSC	$109.95
CD32 complete with RAM/tested (PAL)	$89.95
CD32 replacement CD mechanism	$39.95
A500 (rev. 3) inc all chips	$39.95
A500 (Rev. 5/6)	$89.50
A600	$134.00
A1200 (NTSC) Limited quantity 3.0 O/S all memory New	$300.00
A1200 (PAL) Limited quantity 3.0 O/S all memory New	$300.00
A2000 LATE Rev. 8372/2.05	$399.95
A3000 (16MHz)	$264.50
A3000 (25MHz)	$294.50
A3000T (Tower) 25MHz	$389.95
C64 (refurbished, tested all chips)	$29.95
C64 untested, all chips clearance	2/$25.00

AMIGA FLOPPY DRIVES (Factory New)

Item	Price
Amiga "Q-Drive" 1241 CD ROM Drive for the A1200	$179.95
High Dens. External floppy for all Amigas	$114.95
High Density Internal Floppy Drive:	
A4000	$104.95
A2000	$109.50
A500 Internal 880k	$38.95
A600/1200 Internal	**$47.50**
A2000 Internal 880k	$39.95
A3000 Internal 880k	$49.95
A4000 Internal 880k	$49.95
CD32 Replacement CD mechanism	$39.95
1541 (refurbished)	$39.95
1571 (limited quantity)	$49.95

POWER SUPPLIES (Factory New)

Item	Price
A500	$38.95
A500/A600/A1200 Big Ft. (200 Watt) Micro R/D	$79.95
A500 power supply (used) 220 volts Europe	$19.95
A590	$19.95
A1200 110 volts original factory	$38.95
CD32 Original / Factory (110 volts)	$21.95
CD32 Original / Factory (220 volts)	$14.95
CD32 Big Foot (200 Watt) Micro R/D	$74.50
A2000 110/220V. internal original	$89.95
A2000 Big Foot (300 Watt) Micro R/D	$144.50
A3000 internal (110/220 volts)	$110.00
A3000 Big Foot (250 watts) Micro R/D	$144.50
A3000 Tower	$124.00
A4000 internal (110 volts)	$119.00
A4000 int. 300 Watt Big Foot (exchange)	$169.95
1084S Phillips Flyback Transformer only	$34.95
1084-D1 Phillips/Daewoo Flyback only	$38.50
1084-D2 Daewoo Flyback Transformer only	$38.50
1084S new Motherboard/Flyback	$69.95
1084S power supply board (refurbished)	$29.95
C64 nonrepairable	$14.95
C64 repairable	$19.95
C64 5.2 amp Heavy Duty (also 1750 REU)	$39.95
C65 110 Volt	$21.95
C128 external 5.2 amps	$39.95
1541 II/1581	$7.50

KEYBOARDS (Factory New)

Item	Price
A500 (limited quantity)	$39.95
A600	$26.50
C128D (limited quantity)	$24.95
A1200	**$34.95**
A2000 (Amiga Technologies)	$74.50
A3000 (Amiga Technologies)	$74.50
A4000 (Amiga Technologies)	$74.50
A2000 keyboard adapter to A4000	$8.95

ADD ON BOARDS (Factory New)

Item	Price
68020-030 (A4000)	$67.95
A2058 (ØK) (A2000) Expansion board 8K	$69.95
A501 original Ram Exp. – 512K (A500)	$17.95
Microway Flickerfixer	$224.00
Slingshot Pro/pass thru (Micro R/D)	$37.50
A1050 RAM Expander (A1000) 256K	$10.95

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Item	Price
1230 Lite 25MHz 68030 W/MMU+FPU for A1200 computers	$144.95
1230/50MHz 68030 for A1200 computers	$239.00
1240/25MHz 68040 for A1200 computers	$369.95
1240/40MHz 68040 for A1200 computers	$459.95
1260/50MHz 68060 for A1200 computers	$729.95
1200 SCSI Module for Apollo A1200 accelerators	$129.00
2030/25MHz 68030+68882+SCSI-2 for A2000	$299.95
2030/50MHz 68030+68882+SCSI-2 for A2000	$389.95
2040/25MHz 68040+SCSI-2 for A2000	$449.00
2040/40MHz 68040+SCSI-2 for A2000	$529.00
2060/50MHz 68060+SCSI-2 for A2000	$849.95
3060/50MHz 68060+SCSI-2 for A3000 Desktop	$829.95
3040/40MHz 68040+SCSI-2 for A3000 Desktop	$559.95
4040/40MHz 68040+SCSI-2 for A3000T & A4000(T)	$559.95
4060/50MHz 68060+SCSI-2 for A3000T & A4000(T)	$819.95
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Item	Price
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Blizzard 1230-IV Turbo Board	$269.95
Optional Blizzard 1260 or 1230-IV SCSI Kit	$169.95
Blizzard 2060 Turbo Board	$849.95
Cyberstorm Mark II 060/50MHz	$849.95
Cyberstorm Fast SCSI-2 Module	$179.95
CyberVision 64/3D 2Mb	Call
CyberVision 64/3D 4Mb	$389.95
CyberVision 64/3D MPEG Module	Call
CyberVision 64/3D Scan Doubler/Monitor Switch	Call
CyberGraphX Software	$49.95

MOUSE CONTROLLERS (Factory New)

Item	Price
Amiga 1352	$22.50
Wizard 3-button (for all Amigas)	$22.95
A4000	$26.85
Amiga CDTV	$15.95
Amiga A1200 mouse port replacement kit	$7.95
CD32 controller	$11.75

DIAGNOSTICS

Item	Price
Advanced Amiga Analyzer (see below)	$59.95
Final Test diagnostic disk by Amiga	$7.95
Amiga Troubleshooting Guide	$7.95
Commodore Diagnostician II	$6.95
Complete Service Manuals: A500, A500+, 590, A1000, 1230 printer, 1802, 1902, 1902A, 1934, 2002, 2091, 2300, 2630, CDTV, 1581, C65	$19.95
A500 schematics, A600, 1084S, 1084S-D1, 1084ST, 1936A, 1960, A2000	$24.00
A1200, A3000, A3000T, A4000, CD32	$39.95

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Item	Price
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2.04/3.1 ROM Switch - (Switch Itt) with speaker	$17.50
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Monitors: 1084S, 1802, etc	CALL
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- New Daughter Board.
- Amiga 3000 Mouse
- Full A3000 Service Manual (valued at $39.95).
- User Manual.
- All Cabling.
- 90 Day Warranty (on motherboard only).

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Item	Price
Ramsey 7 Upgrade	$31.95
DMAC 4 Upgrade	$29.95
Super Buster 11 Upgrade	$29.95
Western Digital SCSI 8A	$23.95
3.1 Operating System Upgrade ROM	$57.50
3.1 ROM Software (package of 7 discs)	$7.50
3.1 Books/Manual (without disks or ROM)	CALL
1 x 4 Static Column ZIP (8 zips = 4 megs)	$7.00
Hard Drive	CALL
AmiFAST 3000 Adapter (ZIP to SIMM adapter)	$74.50
Rack Mounted A3000 Cabinet	$54.00

Spare A300 Motherboards - See top half of ad (Motherboard Section) for prices

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Make you print out sparkle with this great fully working demo of Turbo Print from IreeSoft

Extracting Cover Disk Files

Before you even think of putting the cover disks any where near your computer, make sure you write protect them. Move the black tab in the top corner of the disk, so you can see through the hole, this makes sure you cannot damage your disks in any way. There is no reason why the cover disks need to be written to, so even if the computer asks you to write enable the disks, don't do it.

To extract any single archive, simply double click its icon, and follow the on screen instructions. If you want to quickly extract the program to Ram, select the NOVICE level on the welcome screen and press proceed once on the current screen and then again on the next. The program can then be found in your Ram disk. Normally most programs will need further installing, so read the documents on how to do this.

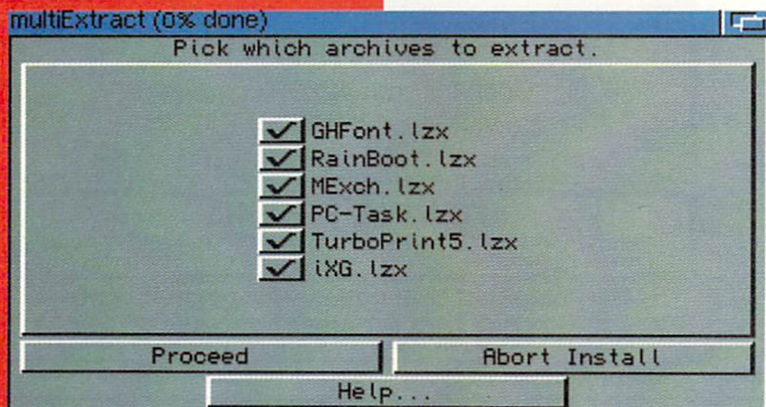
Hard Drive Users

Hard drive users do not have to boot with the first disk, but you must make sure you have the Amiga's Installer program in your C drawer. To make sure your hard drive has the correct files in place, double click on the SetupHD icon. This will check if you have the Installer program and, if not, will copy it across, do not worry as it will not write over any existing files.

All you hard drive owners will find MultiExtract very useful. It is a separate method of extracting the cover disk files. It allows you to extract a number of files in one go, to your hard disk or Ram.

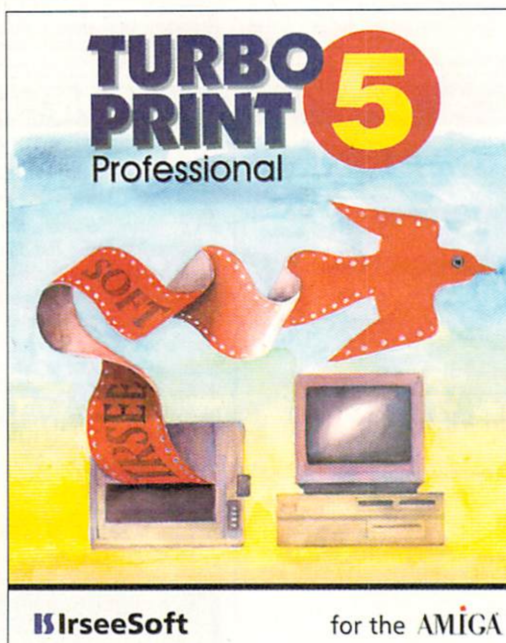
When you run MultiExtract, you will be presented with a number of check boxes, each representing one of the programs on that cover disk. Just de-select all the programs you do not want extracting, and then press proceed. All the selected programs can now miraculously be found in the selected destination.

This is MultiExtract for all you sensible people with hard drives



TurboPrint 5 Demo

Author: IrseeSoft
Workbench 2.04





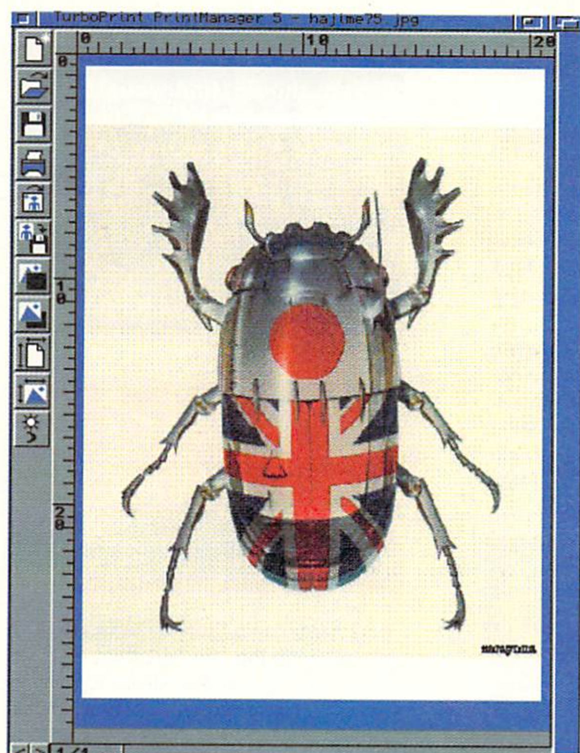
It's possibly the last thing you think about, but is probably the most important part of producing documents on your Amiga – what the final print out will look like. Using TurboPrint you will be able to get incredibly crisp, sharp, well defined images and documents from your Amiga, probably the best you have ever seen.

This may seem a bit of a wild statement, but TurboPrint really can perform such a transformation on your print outs and using this demo you can try it out for yourself. It will only allow the printer to use half the page, but at least you get a chance to see the output for yourself and not have to take my word for it.

Once you have everything installed on your machine, the first thing to do is run the preference program and set TurboPrint for your printer. If you are just going to using plain old greyscale documents you will be able to take advantage of all the advanced dithering that TurboPrint offers, along with possibly higher DPI settings than the standard Amiga drivers can do.

You will see a huge improvement in colour printing. Print in full 24 bit colour along with enhanced colour selection. All this and more can be changed from within the preference program, it should take you some time to look around. Once everything is set to your satisfaction, to quickly try out TurboPrint, run the graphics publisher.

Graphic publisher can load many differ-



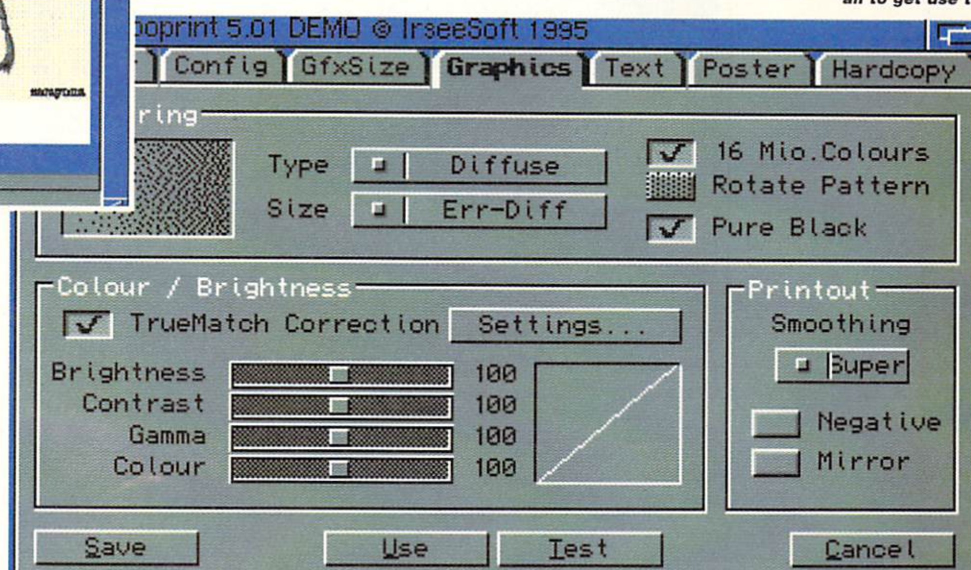
PrintManager will let you test out TurboPrint's quality output and can load almost any file format you like

INSTALLING TURBOPRINT

To get TurboPrint off the cover disk, just go through the normal process. Double click the AC disk icon and double click the TurboPrint icon, follow the on screen instruction.

TurboPrint can now be found in the Ram disk and needs to be installed from here. Before running the install program, you **must** double click the Assign TurboPrint icon otherwise the install will fail. The installer will ask you a number of questions, one of which will ask you if you want TurboPrint automatically started each time your Amiga is run, this places a program in the WBStartup drawer and replaces the normal Amiga print routines with the special TurboPrint ones. After you have finished trying TurboPrint, to disable it, simply remove this program.

The main TurboPrint preferences may look a little intimidating but really take no time at all to get use to



ent types of picture files including IFF, Jpegs and Gif files. It then produces an on-screen preview of what the final dithered print out will be like.

If it looks to dark or washed out you can adjust the brightness and contrast levels, and if you want other pictures can be loaded on top. To change the print style you can also loadup the TurboPrint preference program at any time.

RainBoot

Author: Kimmo Pekkola
Workbench 3.0

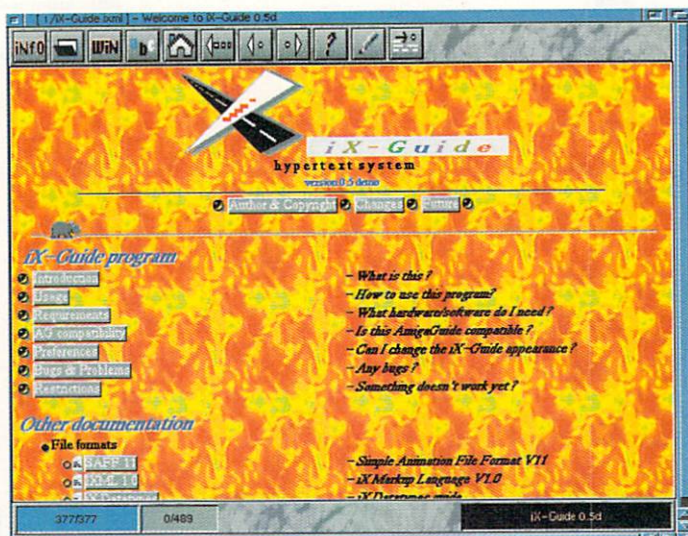
Why do you have to sit there looking zombiefied at a blank screen waiting for your Amiga to restart? What you want is a boot picture. RainBoot is a boot picture program for nutters. No plain old, lets just have a picture on the screen, that's not for me buddy. I want scrolling text, fancy backgrounds, progress bar, configuration information and boot pictures. Did I mention you can even play tracker modules for a bit of aural pleasure? All these features come with a price, RainBoot is complicated to set up. Even with the install script you will have to do a lot of work so read the documentation – a couple of times.

iXG

Author: Ivan Sturlic
Workbench 3.0

This is an interesting program, it provided a whole bunch of new extensions to AmigaGuide files, allowing graphics, better formatting and even animations to be added in documents and yet still be readable by a normal AmigaGuide viewer.

To try it out just run the iX-Guide program, go to the docs drawer and open the iX-Guide.ixml file. Doesn't look like your normal AmigaGuide, does it? It does use the same system however, and the document you are reading with all the fancy graphics still loads correctly into MultiView or AmigaGuide.



Faulty disks

If you should find your Amiga Computing CoverDisk damaged or faulty, please return it to:

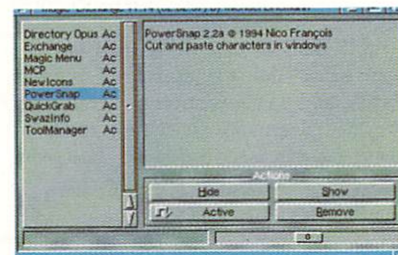
TIB Plc, TIB House, 11 Edward Street, Bradford, W. Yorks BD4 7BH.

Please allow 28 days for delivery

Magic-Exchange

Magic User Interface
Author: Michael Einemann

It is a handy dandy Exchange replacement for all you people that love MUI. If you don't like MUI, this is just another creations, memory eating, processor chewing MUI program that you can ignore and continue to put up with the standard Commodore effort. Including the normal advantages of a MUI program, this gives you everything Exchange has, plus multiple programs can be changed at once and you can adjust the priority of the task, which is nice. Just run it and try it.



PC-Task v4 Demo

Author: Chris Hames
Workbench 2.04 68020 processor

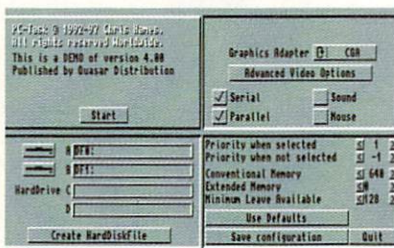


So you want to run PC software, what do you do? Go out and blow the best part of £2000 or spend 50 quid on a piece of software that will let you run whatever you like? PC-Task gives you full 486 emulation with advanced dynamic compilation that can speed the emulation up to three times that of a normal emulator and all the traditional PC display modes, including SuperVGA with up to 2Mb of video memory.

This demo gives you a nearly fully functional version of PC-Task, the one restriction being that it cannot write to any disks. There are two versions: The dynamic and the traditional interpretative version. The new dynamic emulator uses special dynamic compilation routines to greatly speed up the emulation, at the expense of greater memory consumption. So if you are low on memory, use the interpretative version.

OK, lets get one thing straight, emulators are complex pieces of software and PCs are far from the easiest things to use. So combine the two and you're asking for trouble. To use PC task you must, at the very least, have a double density PC formatted disk before you can even do anything with the program. To make one you need to type **format A: /s /f:720** into a real PC, with a DD disk in its A drive. This can be used to start the emulation, but you will still need some sort of PC software to really test this great PC emulator.

As the demo will not let you write to any disks, even a fake hard drive, the software will have to fit onto a floppy so get hold of some old DOS software and you can try it out.



AmiPeg

Author: Miloslaw Smyk
Workbench 2.04

Do you want the fastest Mpeg player on the Amiga? Well this is for you, not that you should expect too much on a plain old A1200, but any accelerated Amiga will be able to bang out Mpeg streams without breaking out in a sweat.

Oops

As always the cover disks are compiled at the last possible moment so you get the latest Amiga products and programs out there, normally without any hitches.

In the rush this month, a couple of the programs do not seem to have drawer icons (I'll fire myself after I have written this). If you extract a program and it does not seem to be where it should be, select from the Windows menu Show/All files and this should make it appear. Right you, you're fired.

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AMIGA 1mb

audiogenic

Audiogenic cricket games are renowned as the world's best. **BRIAN LARA CRICKET '96** for the Amiga incorporates some great new features many of which were suggested by users. For example, the SIX-HIT button which allows you to hit out whenever you want; USER-CONTROLLED FIELDING (optional); new VARIABLE-SIZE BOWLING MARKER underlines the difference between top bowlers and the occasional bowlers and DISK-CACHE-ING virtually eliminates multi-loading on machines with more than 1Mb of conventional memory.

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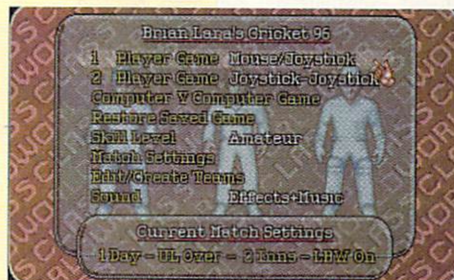
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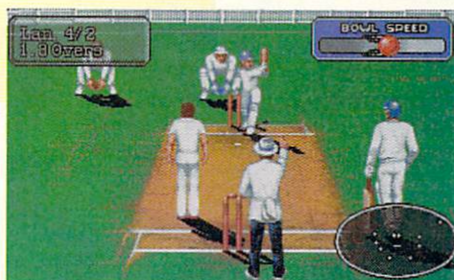
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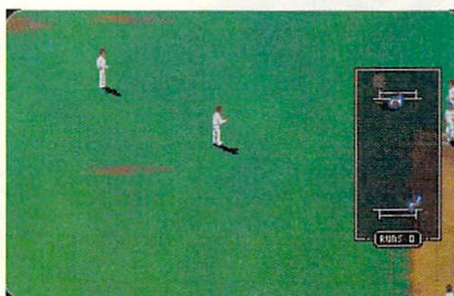
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There is even more fun to be had with these add-on disks. The Women's disk allows you to play Ladies tournaments, even a Grand Slam. The Mixed Doubles disk allows you to enter Exhibition matches or a League. Just ***£7.99*** each, alternatively get both sets on one disk for **£14.99.**







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Midi madness

So you want to make beautiful music with your Amiga? **Neil Mohr** takes you one step beyond

After last month some of you may be getting a little more adventurous with your musical compositions and may feel the limitations of the standard trackers that proliferate the computer market. The next logical step for any would musician is to step into the world of Midi.

In the electronics industry, standards tend to fall into two categories – those that fail miserably and those that surpass all expectations. Midi well and truly falls into the latter, being a run away success helping to completely transform the music industry along the way.

Meaning Musical Instrument Digital Interface, Midi gives a standard way for all forms of instruments to communicate and control each other via a standard set of commands. Being digital, it allows a computer with the right interface and software to take control.

When notes are played on a Midi instrument information about the note, strength and instrument are sent from the Midi out port. This can then be read by any other instrument and if you just so happen to have a computer attached to the Midi network, a sequencer can read and store this data, along with timing information allowing the notes to be played again later.

You will be glad to hear that for software you may not need to wander too far. That all encompassing music program, OctaMED, has a Midi sequencer built in and will handle all a beginner's needs. If you find you do out grow OctaMED, Music-X, Dr T's KCS or the highly accomplished Bars & Pipes Pro should provide everything you ever need. Most of this software is around five years old, but even so provides everything a professional musician would need, particularly Bars & Pipes Pro and, compared to the industry standard CuBase, cost absolute peanuts while providing the vast majority of features.

For anyone quickly casting an eye over the available synths, drum machines and mixing desks it is very easy to be put off by the sometimes incredible expense of Midi equipment. But for a beginner who has already dabbled with sampling and more than likely has a copy of OctaMED, the very basic equipment necessary to get started can be picked up for not much more than a 100 pounds.

Before you can go running off and buying Midi equipment you will have to give the Amiga a way of hooking up to, and communicating with this equipment. To do this you need what is aptly called a Midi interface and can be picked up for 20 pounds. As a minimum you need an interface that has Midi in, out and thru connections, allowing your Amiga to receive, send and pass on Midi information.

First Computer Centre sells quite a reasonable interface and can provide additional Midi to connect everything together if you need it. As a note, the lack of any Midi interface on the Amiga has been cited as a reason for the Atari ST (that had built in midi ports) being anywhere near as popular as it was in the music industry.

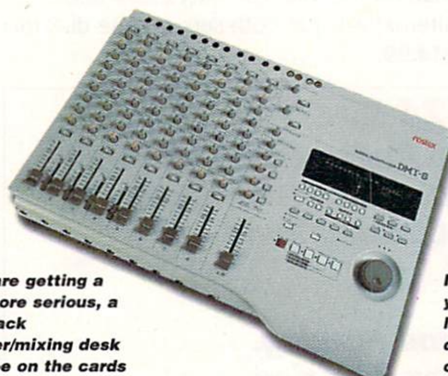
Once you have access to Midi software and interface you can consider your next purchases. At an absolute minimum you can get away with owning just a keyboard. If however, you plan to start using multiple Midi instruments and have many different sound sources you will need to start considering mixing desks and multi-track recorders, at which point you will be moving on to owning a fully blown recording studio.

So, your first and most important purchase is a good keyboard, also known as a synth. Compared to trying to write music in a normal tracker program, a keyboard is a far more natural way of composing, allowing you to quickly try out and change parts of your compositions and, once you are happy, record off to your Midi sequencer. This is not to mention the vast improvement on how good your music sounds.

As will all technical equipment, synths have the usual array of technical jargon surrounding them. Terms like polyphonic and



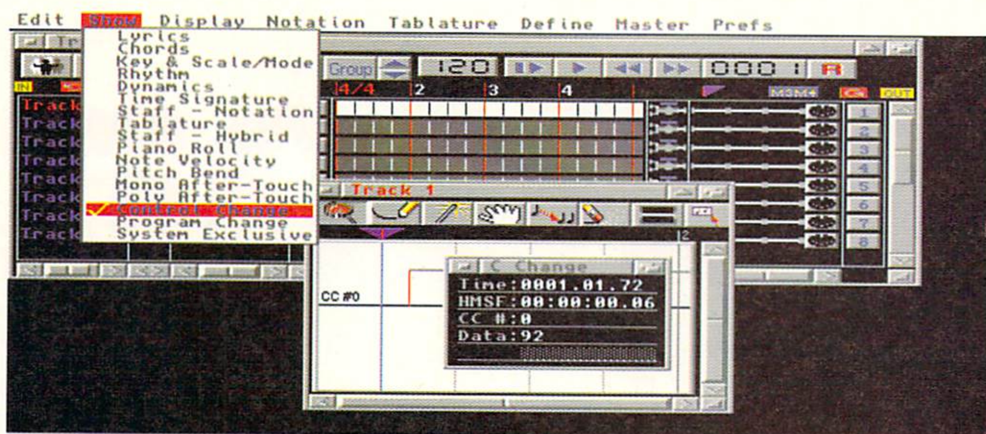
A decent keyboard is your first essential buy



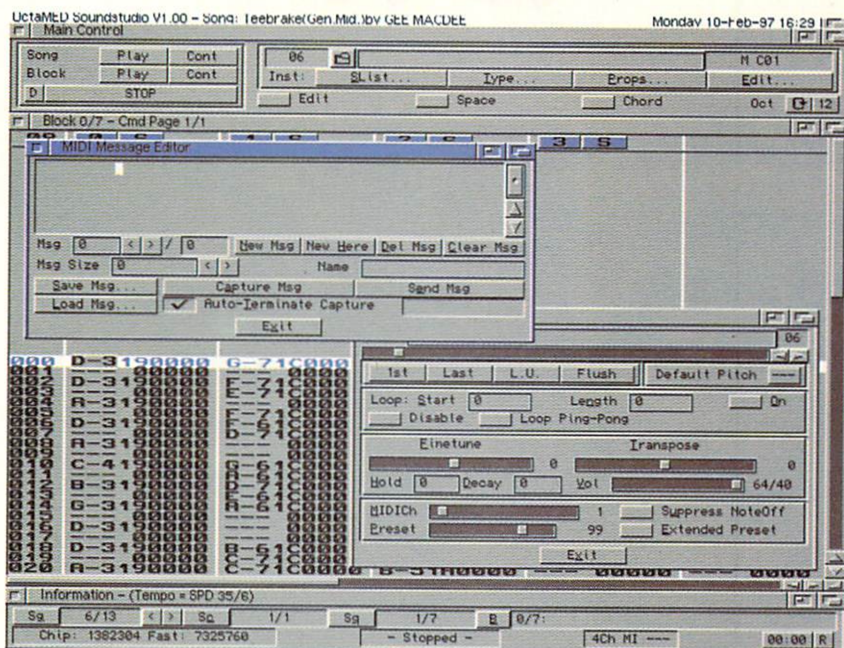
If you are getting a little more serious, a multitrack recorder/mixing desk could be on the cards



If you find your keyboard lacking, a drum machine can help



You won't find better anywhere else. Bars & Pipes Pro is the bees knees



OctaMED Sound Studio has all the Midi facilities a beginner will need

multi-timbral may be Greek to you but are very important abilities in a keyboard to look out for. A polyphonic synth is able to play more than one note at a time so allowing complex chords to be played as each note hit requires a separate channel.

A polyphonic keyboard becomes even more important if it is also multi-timbral, this is a synth that can play more than one instrument. So you can have a cello, bass drum, high hat along side you piano, that could need five or six notes adding up to around 12 notes at once.

The synth keyboard is probably the most important part of your set up so it is wise to take your time when choosing one. If you just want to try out the basics then a reasonable keyboard can be picked up for around £100. If you plan to go for anything more expensive make sure you try it out fully, as you do not want to be lumbered with a keyboard you don't like. If you can afford it, a touch sensitive keyboard gives more control over notes, allowing you to add emphasis to notes.

With just a keyboard you can get away with using your sequencer to handle all the mixing, and for basic results your hi-fi amplifier and cassette will do. If you do start to add further synth sound modules or a drum machine, then a mixing desk is going to be needed, allowing all the audio outputs to be mixed together and recorded off to cassette.

To reiterate what I said at the beginning, even though at first glance Midi equipment may look expensive, the actual basic equipment required to get you going is fairly low cost, especially if you go for second hand equipment. The beauty of Midi is that you can slowly and seamlessly add to your system. A final word of warning, if you get bitten by the Midi bug a complete system capable of adding real time accompaniment could cost up to £10,000, so try not to go overboard, I wouldn't want your house repossession on my conscience.



SERIOUS CONSIDERATION

Starting off in Midi does not have to cost too much, and this feature is really aimed at beginners who want the better end results that trackers provide but want to keep the starting cost low by using basic software and the minimum of equipment, probably second hand. However if you find you get the bug for composing your own music and want to expand to a full recording studio, the cost can quickly rocket. Here are some extras you may want to take into consideration.

A keyboard synth is basically a keyboard connected to a synth module, and it is possible to buy synth modules separately with no keyboard that are then controlled directly from your Midi sequencer. This allows you to compose the music from your main keyboard and replay the sequence but to the Midi synth module, giving you a larger selection of possible sounds.

A possible alternative to an additional sound synth would be a good drum machine, essentially a specialised synth module, allowing you to add drum and percussion without the need for a full drum kit.

Beyond basic sequencer based composition, when it comes to adding real time vocals or musical accompaniment to your composition you start to enter the realms of an expensive recording studio. Along with the necessity of a mixer, you will have to add a multi-track recorder or direct to disk recorder that are not cheap. For vocals, a signal processor will be a necessity to at least add a little reverb to make vocals less flat.

This is not to mention a quality microphone, headsets and, as I doubt you have a dedicated sound booth, a compressor to remove background hum and noise from vocals will be a must. Finally on the equipment list, if you need CD quality, would be a DAT drive, so you can run off to the nearest record producer with your latest creation.

For perfect recordings you have to remove all forms of interference. This includes noise added from poor leads and overloaded power supplies, make sure you use good quality leads to connect everything up and try not to run audio and Midi leads next to power cables or anywhere near monitors.

If you get to this sort of stage you would have well outgrown your typical hi-fi system and should have already splashed out on dedicated amplifiers, headphones and speakers.

Evolution of a legend

Paul Austin casts a critical eye over NewTek's latest incarnation of Lightwave



It's been a long time coming for Amiga fans, but Lightwave 5.0 has finally arrived on the platform where it all began. The wait seems even longer thanks to its appearance on just about every other platform beforehand, including its latest appearance as a Power Mac product.

Still, it's here now. But the question is: Has the wait been worth it? Well, that's something you'll have to decide for yourself after the customary stroll through the add-ons and updates but there's definitely a few surprises – both good and bad.

What's new in Layout

As ever there are buckets of minor interface updates and rethinks, but I'll be concentrating on the features that make the difference between sticking with what you've got or signing the cheque.

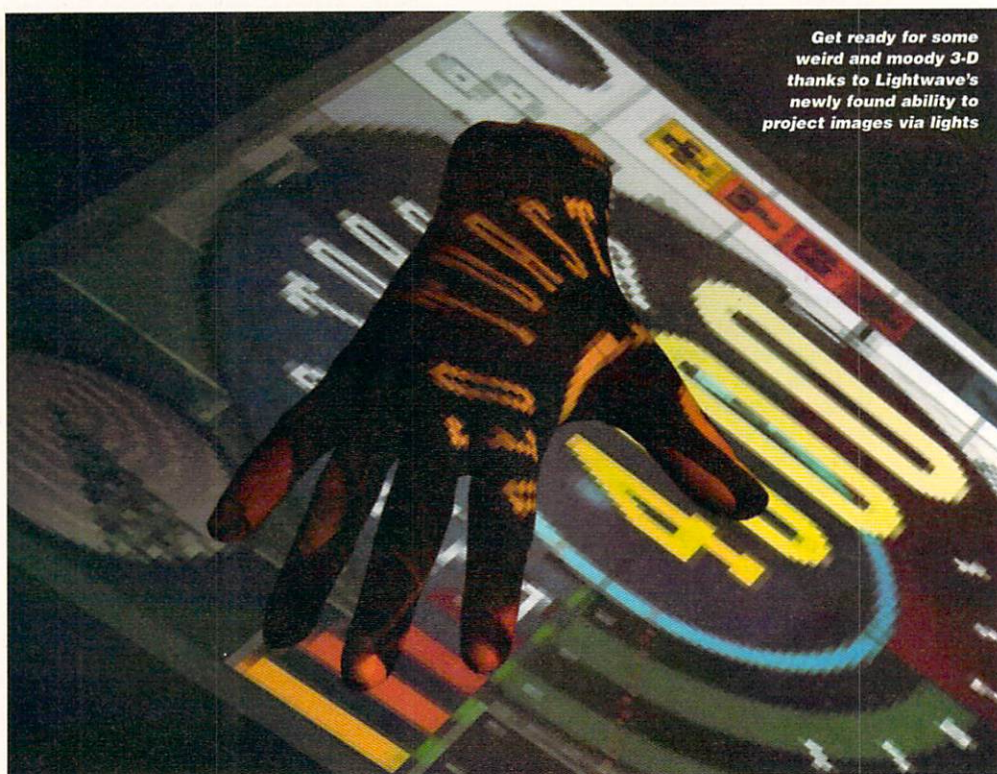
On the Layout side life, as ever, looks pretty much the same as it did in 4.0. However, it is always the same with Lightwave: If you want to know what's really happening you have to look behind the scenes.

On the surface the only noticeable change is the arrival of front face and solid previews on Layout's stage. Although hardly earth shattering in technological terms, it nevertheless represents a marked improvement when it comes to overall ease of use.

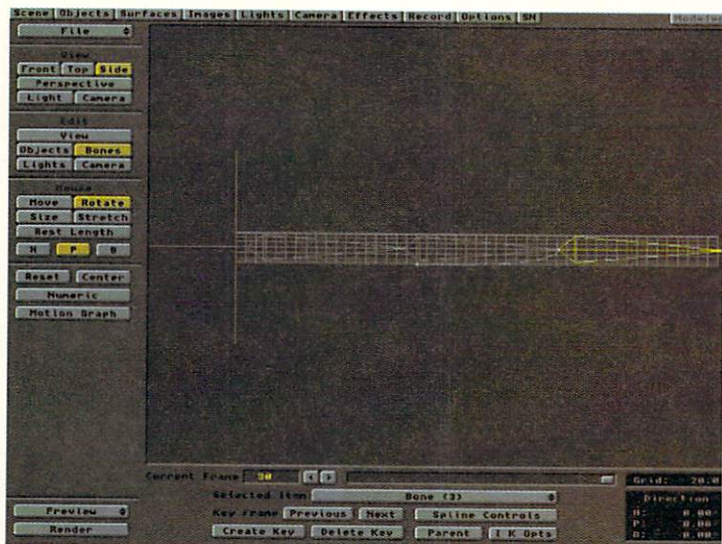
Rather than suffering a sea of seemingly interconnecting wireframes while constructing complex scenes, solid and front face previews do a great job of simplifying what in the past could present a very confusing spectacle. In addition, it also offers the added bonus of much faster redraw when things are starting to get seriously cluttered.

One of the hidden secrets of the Layout is the new approach to surface textures and alpha channels. Aside from the long awaited arrival of support for tiling of textures, perhaps the most radical change is the arrival of unlimited texturing with associated alpha channels.

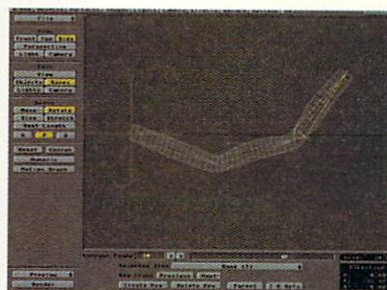
In the past, surface attributes were limited to one texture each. This meant one in the colour field, one in the diffuse field etc. Although combining attribute textures in this way can produce stunning results – as proven by such notables as Ron Thornton – this new

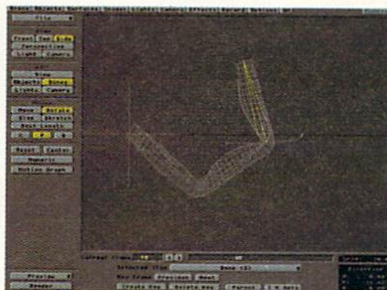


Get ready for some weird and moody 3-D thanks to Lightwave's newly found ability to project images via lights



Left and below: Bones were just the beginning, now muscles can bring character animation to life. And thanks to joint compensation, objects bend rather than buckle at the elbow





found ability to link unlimited texture maps and alphas across the whole range of attributes is sure to revolutionise surfacing within Lightwave.

The actual process of applying textures remains virtually the same. However, now you can go on adding new layers to images to surface by simply clicking the "Add Texture" button. The actual texture mix is controlled by simply adjusting the new "Texture Opacity" control. Therefore you can easily blend all the textures within a particular surface attribute to produce the perfect mix.

The final touch of genius is the ability to add an associated alpha channel image to every texture you use. Therefore you can have two textures on the surface both at 100 per cent opacity but with the an alpha channel cutting holes or blending the second image to reveal the image beneath. And of course, one or both could be animated textures or image sequences generating movement across the surface.

Basically the more you think about the potential and experiment with the flexibility multiple image layers provides, the more and more impressive these new features become.

Arguably the next most important step on in the evolution of Layout is the arrival of muscle flexing and joint compensation when animating an object using bones. By combining the two you get control, not only over the movement of a bones object, but also its deformation as the bones move and rotate the object they control.

Muscle flexing is the visually more impressive of the two. With muscle flexing active the area occupied by the bone will swell or expand in relation to how much rotation is applied at the joint with its parent bone. There are various options to fine tune the effect, but in essence it does exactly what you expect. As the arm bends at the elbow, the muscles bulges by a defined amount.

To complement the realistic effect of bulging muscles, joint compensation provides an equally, if perhaps less impressive, weapon in the fight for realistic character animation. Essentially joint compensation stops unrealistic pitching or folding at the joints as an object deforms. In short, joints bend rather than buckle. Like its muscle flexing counterpart you're provided with complete control over the strength of the effect - either negative or positive.

In addition to these two new features, bone control itself has also been enhanced with bone strength falloff also appearing in the mix, enabling even more intuitive control over character animation within boned objects.

Kinematics is another area to see some enhancements with new features such as active goals and user definable goal strengths. Like bones, the kinematic enhancements are really a case of building on existing abilities and making good things that bit better, adding more flexibility and intuitive touches for more natural approach.

More anim specific add-ons include multiple morphs target from the same envelope, interactive camera zoom and interactive light cone adjustment. The final touch in the lighting department being Layout's newly found ability to project an image through a light which, as the cover image demonstrates can create some seriously weird effects. Not exactly an everyday tool, but certainly worth experimenting with...

What's new in Modeller

Like Layout, Modeller has seen a few changes. But unlike its counterpart, Modeller has one major killer application in the form of MetaNurbs.

MetaNurbs combine traditional polygon based modelling with the power of splines. Although spline based modelling is already available thanks to spline patching, building models using traditional spline patches is, to say the least, an acquired taste.

Although splines are superb for the production of organic forms they can often be very tricky to implement. But thanks to MetaNurbs, spline problems are a thing of the past.

Basically MetaNurbs enable you to build a traditional polygon based object which when MetaNurbs is activated - by pressing the tab key - becomes an interactive spline based model which you can continue editing via normal editing tools. As you edit the original model the changes appear instantly on the spline floating in the preview window.

The end results are fluid organic models in the style of metaformed objects, but unlike metaformed models MetaNurbs are totally interactive, enabling you to drag scale and squeeze the model into the exact shape you require. Only when you're completely happy with the new shape do you freeze the newly formed spline and transform it back into a perfectly formed organic model.

Aside from the pure modelling power of the system perhaps the real beauty of the MetaNurbs is that there is no learning curve involved in using the new tool. All the skills you've amassed while working on normal polygon models can now be applied directly to spline based modelling.

In practise, MetaNurb modelling is like modelling in clay. The only limitation is that polygons involved must be quad or four sided. On occasion this can present problems with certain forms, the poles of spherical models for example, which are inherently made up of triangular polygons. Fortunately that's where Metaform can help by sub-dividing and smoothing any untouched triangular polygons to match the organic shapes generated by MetaNurbs process.

Better still MetaNurbs also adheres to Modeller's selection rules. Therefore if only part of a model is selected it's only those polygons that the MetaNurb process will affect.

As you can imagine creating so many compound curves and assorted organic forms can occasionally generate none-planar polygons and subsequent rendering errors where adjacent polygons don't align correctly. As a result it's always worth checking for none planar

polygons after creating MetaNurbs model.

Other, less impressive but nevertheless handy, additions include the ability to set basic attributes to surfaces prior to export into Layout, including name, colour, specularity, glossiness, smoothing and the number of sides. A slightly more useful addition is a new lasso style zoom tool, which although simple, does help to speed things up when you're dealing with large models with areas of high detail.

Plug-in away

As Layout and Modeller evolve, Plug-ins are destined to play an ever increasing role in the growth of the overall package. Thanks to Plug-ins Lightwave's long suffering programming team can sit back a little and let the third party guys do some of the hard graft.

In version 5.0 over 60 assorted plug-ins ship with the package split roughly 50/50 between Layout and Modeller. On the Layout side the main emphasis is on post processing, object deformation, solutions to parenting problems and the simplification of character animation.

On the Modeller side such notables as Metaballs make an appearance, although I couldn't try the feature first hand as it failed to run on both machines I attempted to run it on - no doubt there's a bug fix in the post.

Basically Plug-ins are the future for Lightwave and with 63 assorted tools to play with as standard I'd need another three pages to do them any real justice. Unfortunately however, Plug-ins do present a worrying prospect for the Amiga community. Although they have been a part of the Amiga version since version 3.5 there appears to be no Amiga based third party support planned.

All the effort in this area is happening on the PC and other platforms. In fact, many of the old Amiga third party programs such as Sparks and Fibre Factory have already made their debut as Plug-ins on the PC - and yet there's no sign of them appearing on the Amiga...

The bad news...

With the uncertain future for the Amiga and the ever growing presence of PCs, Macs and assorted Unix boxes, it's perhaps understandable that the Amiga isn't high on Newtek's priority list. And although Lightwave is virtually identical across the board it must be said the abject lack of development on the Amiga is starting to take its toll.

Without doubt the most notable omission is Open GL/QuickDraw3D support as found in the PC and Mac versions respectively. On both platforms it provides real-time shaded previews in both the Modeller preview and the Layout stage.

Obviously the speed of preview is relative to the machine in question, but is an impressive addition to Lightwave's visual repertoire, enabling an interactive preview of surface attributes within Modeller and also the effect of lighting within Layout.

Due to the lack of suitable hardware acceleration and ongoing development this kind of real-time preview simply isn't possible on the Amiga. Admittedly, even OpenGL doesn't deliver the complete picture, as only attributes and not textures are shown in the preview. However, it is still an important advance that the Amiga simply can't accommodate.

Fortunately there are still a number of things the Amiga can offer in the display department that Newtek appear determined to ignore. The most annoying of which is an apparent refusal to offer full third party support for anything other than the Picasso II display board.

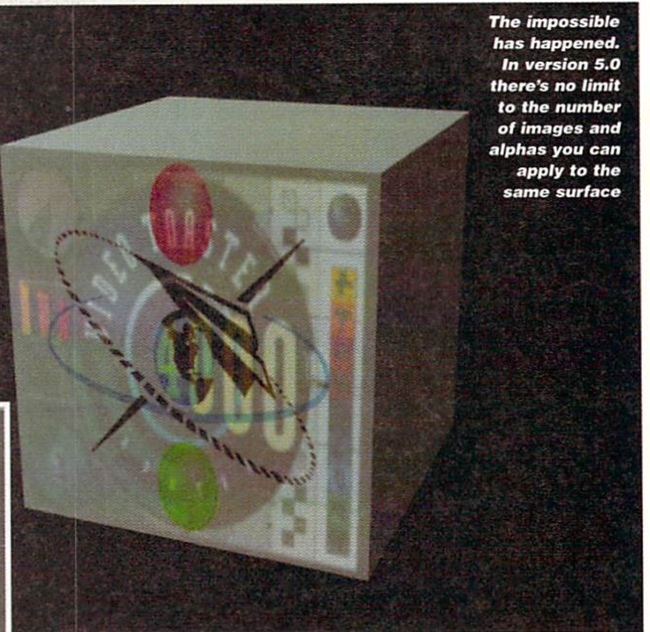
Obviously offering direct support for every type of display device is perhaps a little unrealistic, but there's no reason why Cybergraphics support couldn't have been added, thereby enabling virtually anyone with a third party display card to share in the Picasso II's ability to show 24 bit/truecolour single frame previews and perhaps more importantly deliver wireframe previews of animations generated within Layout.

The big decision

The big question – is the all new Lightwave worth the investment? Well, if you're already running Lightwave 4.0 the answer has to be a resounding yes! If you can take advantage of the upgrade offer it's an absolute must.

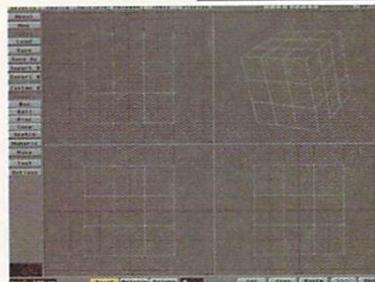
Obviously the lack of OpenGL and proper third party display support is annoying, but the combination of Metanurbs, better bone control alongside all the other updates and add-ons make it worth while.

If you're new to 3-D and are toying with the idea of paying full price, I'd suggest looking long and hard at the alternatives beforehand. To be honest, it's obvious that unless something remarkable happens to the Amiga the long-term future of Lightwave lies on other platforms - so unless you're planning to stick with the Amiga for religious reasons, the Mac or PC look a much better bet when it comes to the full asking price.

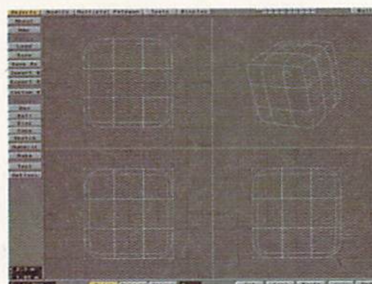


The impossible has happened. In version 5.0 there's no limit to the number of images and alphas you can apply to the same surface

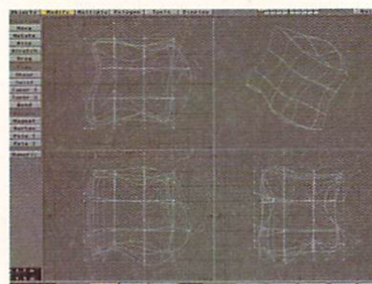
Simple spline based modelling – the unthinkable has happened. Now you can create the ultimate in organic modelling without even glancing at the manual



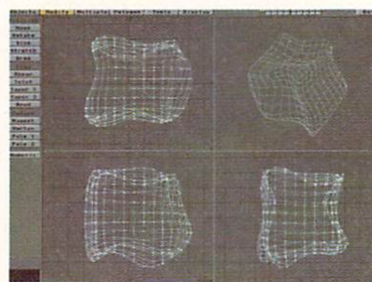
A simple cube with a division to help maintain a cubic form during the Metanurb transformation



Next Metanurb is activated and the preview instantly updates with the spline cage generated from the original cube



Now a few edits by simply dragging selected point to make the necessary curves and undulation on the spline based cube



Finally, hit freeze and the spline is transformed back into a perfect organic polygon - and all the time you see the changes happening in real-time as you edit

Bottom line

Requirements

RED *essential* **BLACK** *recommended*



Workbench

16 Mb RAM or above



Product details

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From M62East Join M1 From the M1 follow signs onto M621. Take A643 Elland Rd turnoff from M621. Follow signs for A58. This merges with the Armley gyratory From M62West Junction 27, A62 to Armley gyratory. From the A1 take the turnoff for A64. This merges with the A58 (by-passing town centre) which meets Armley gyratory.

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WE WILL PRICE MATCH ANY ADVERT IN THIS MAGAZINE

Want to add text to Cinema, well now you can. At a little **extra cost**, of course

Sun sea, *and text*

Just squeezing into this issue are two new program extension for Cinema4D. One thing not mentioned in the review is that Cinema offers an extension function allowing external programs to be 'plugged-into' Cinema. Once added they can be accessed just like any other Cinema function from the extension pop-up menu.

The first two extensions to appear from Maxon are CinemaFont and CinemaWorld, both adding a new interface and a simple way of creating complex new models you can add to any scene you like.

I would say the most important addition out of the two is CinemaFont. An omission from the original program was any type of font support – fonts can't be loaded and converted to a model. Two simple pre-designed fonts are provided with Cinema but this is very limiting and is hardly what you need if you are going to be using text a lot. CinemaFont gives you the power to import any Postscript Type-1 font and convert it to either a straight forward polygon or an actual 3D model in Cinema.

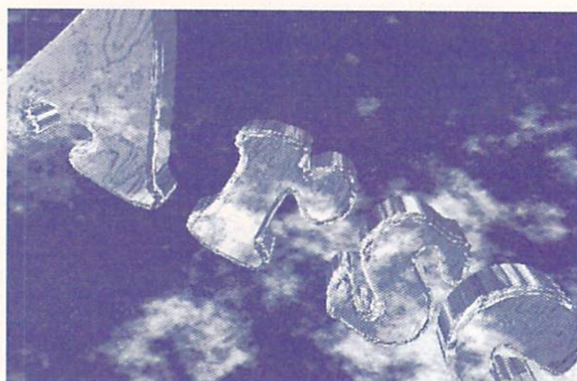
The extension is installed directly to the Cinema4D drawer and is run from within Cinema. The window appears on the Cinema screen, looking all very similar to the normal Cinema interface. From here everything is very straight forward, select what Type-1 font you want to use. Only six styles have been provided, but as Type-1 fonts are rife both commercially and in the public domain you should have no trouble picking up any style you like.

Once you have got this far, just bang in the text you want and a preview outline of the finished polygon is displayed. The text can then be saved as either a spline polygon or a complete model can be generated right along with bevelled edges, so you have complete control over the size and number of polygons used. Click OK and you have instant text – well, generating a text model does take quite a while but raytracers should be used to waiting around. There is an option that will create a complete Cinema font that can be used with the special text object speeding things up considerably.

CinemaFont does seem to have problems generating the text models when it comes to adding the front and backs of letters with 'holes' through the middle such as 'e'. Basically, it just ignores the holes and slap the plates over the top, meaning you have to edit the models yourself before using them.



Slap-in support for text, now you can do 3D titling in Cinema4D


Probably the first and last time you will ever see a big fat shiny arse in Amiga Computing

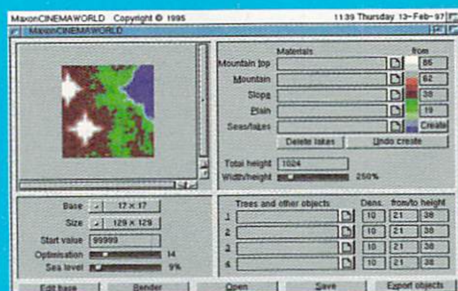
CinemaFont neatly fills a hole that Cinema4D has left, and you could argue that it should be included with Cinema itself, but if you want to add text this is your only real choice and, if it could handle the holes in letters, would have been perfect.

CinemaWorld

Do you want to create intricate realistic landscapes right along with trees, lakes and rivers? CinemaWorld is just what you need. Well probably, if you have ever used Vista that created landscapes using fractual equations then CinemaWorld's interface will look familiar, but with a very useful change – you can 'paint' onto the overhead landscape preview.

Painting is limited somewhat to a specified grid size – 17x17 is the largest available – but this is enough to allow you to 'influence' what the final landscape will look like by setting how high or low the land at that point should be. When you have finished this you have to let CinemaWorld create the actual landscape that can then be exported over to Cinema as a large object. If you wish, World will also randomly scatter any objects you want, such as trees, cows, erm turnips.

I'm not really convinced of the how useful CinemaWorld is. If all you want is a general landscape, then Cinema4D has a fractual generator built in that will produce landscape-like planes, and if you want to produce rolling planes the magnetism tool can be used to warp a flat plane. In its favour the ability to import VistaPro DEMS is genuinely useful and could come in very handy if you need to get a landscape of a genuine part of the world.



Generating landscapes has never been so easy, so you can be master of all you survey

Bottom *line*

REQUIREMENTS

RED *essential* **BLACK** *recommended*


CINEMA 4D

PRODUCT DETAILS

Product	CinemaWorld/CinemaFont
Supplier	HiSoft
Price	£39.95 each
Tel	0500 223 660
E-Mail	sales@hisoft.co.uk
WWW	http://www.hisoft.co.uk

SCORES

Ease of use	96%
Implementation	80%
Value For Money	85%
Overall	87%

Glut of graphics

Everyone wants to add whistles and bells to their Web pages. **Tina Hackett** finds out if Hi-Soft's offering can do just that

Web publishing has really taken off in the last year or so and it seems everyone wants to be a media mogul of the Internet. Anyone can get published on the Web and, as people who visit often will know, this has both its good and bad points. On the positive side it means that everyone can have their say and, of course, it does lead to plenty of variety. However, on the other hand, the Internet is often a haven for nutters spouting any old rubbish which gives rise to a wealth of junk and scruffy looking pages.

Nova Development, however, hopes to put a stop to all this. Okay, the folks there have not put together a 10 tip guide on how to win friends and influence people over the Internet, but they have produced a package which will at least make your pages look nice - despite whatever ludicrous information you wish to impart.

Although this package is only available as either Mac or PC format, distributor Hi-Soft says it is equally suitable for the Amiga and runs with IBrowse and most other browsers. Amiga owners also receive an information sheet describing how to make the most out of the program.

From the moment you open the box and find two shiny new disks and a 120 page manual staring at you, you know this is going to be a jam-packed product. There are an amazing 50,000 graphics files (of about 20,000 different images) to choose from which vary from buttons, banners, textures and colour clip art.

The amount on offer is truly amazing and no matter what kind of graphic you need for your site, I'm sure you'll find it here. Whether you want a graphic of a certain world leader or a sign of a zodiac you will find it within Web Explosion. Graphics are provided in GIF or JPEG format so they can be used with any program that supports them and all are royalty free for use on the Web.

> *The amount on offer is truly amazing and no matter what the kind of graphic you need for your site. I'm sure you'll find it here.*

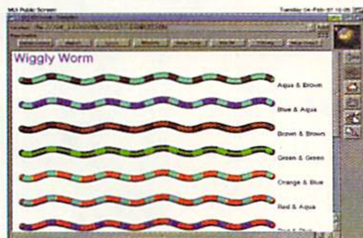
Although PC owners can take advantage of the catalogue program on the CDs, Amiga users can not. To view an image those with Amigas will have to find files that have ".HTM" as an extension which are found in the image directories. If you then load them into a program such as IBrowse you can preview the images.

However, and this is my main problem with the package, it would have been nice if a front-end had been added so that Amiga users could view the images with ease - even a demo of IBrowse added to the package would be appreciated. It is rather irritating to realise that you can't actually even perform a search and you are left to laboriously search for what you need on your own. However, the manual proves invaluable in that you can look through the images without having to plough through the CDs.

Nevertheless, I am still impressed by the actual quality and quantity of images packed onto these CD's. Whether you want a more corporate formal site or a fun, colourful home page, this package is recommended. It's advisable that you are familiar with HTML or a Web page editor before you begin.

Any take your fancy?

Here is just a selection of what images you can find: Coming Soon/Under Construction/Backgrounds/Banners/Textures/Animals/Business/Maps/Military/Time and Date.



There are many colourful graphics which have a practical use for any Web page



Graphics can be viewed in IBrowse. What a shame an Amiga specific front-end couldn't have been included



The manual really helps when you need to find an image

Bottom line

Requirements

RED *essential* **BLACK** *recommended*


CD Drive


Web Browser

Product details

Product	Web Explosion
Supplier	Hi-Soft
Price	£49.95
Tel	01525 718181
E-mail	sales@hisoft.co.uk

Scores

Ease of use	50%
Implementation	50%
Value For Money	70%
Overall	75%

Need help? I do, I'm running out of ideas of what to say here



REQUESTER WORRIES

Having read Neil Mohr's article in issue 107 regarding installing floppy based games onto a hard drive, I decided to have a go at doing that with the excellent game Bubble & Squeak.

I followed the instructions exactly and soon had a drawer in my work partition with all the files of both games disks in it. I then created the script file and the start icon as described. No way could I get the game to run. No matter what I try I always end up with either a fatal error message or unknown command. Could you please tell me what is wrong, and how do I get the thing to run?

I am also having a minor problem with my Workbench preferences. I am now unable to load a picture as a background as the requester will not list the files on either my work partition or system partition. The same applies to the sound preferences. In other words, both requesters can be opened, directed to Work or System, but will go no further. All the other preference programs work fine, what has happened as it all used to work?

D. Lucas, Bevely



The problem you are encountering with Bubble and Squeak is that it cannot be run from hard drive. It is one of those games that is hard coded only to run from the floppy drive, even though it does come on normal DOS disks. I did try this myself and had the same problem. From looking at the DOS script you sent, it looks like you were doing the right thing.

As for your problem with the file requesters used by the WBPattern and Sound preference programs. These requesters filter out all the files that are not DataType supported sound or picture files leaving only sound or picture files shown in the file requester. These preference programs are the only programs I have seen that do this handy process.

It sounds to me that somehow you have lost your system DataTypes. One way to check would be to try using Multiview to load these sound samples as this uses the DataTypes to recognise and load files. On the sample side there is the chance that they are RAW samples and so would be skipped over by your DataTypes, but this would not explain why the WBPattern is not recognising pictures.

If it is your DataTypes that are missing, then depending on how well you know the Amiga's operating system, getting them back could be straight forward, or not. For DataTypes to function correctly you need to have three things correctly set on your machine. Firstly the DataType description files, these are held in the Devs/DataTypes drawer and tell the Amiga how to recognise file types and to activate that specific DataType. The basic DataType files are found on the original Workbench disks and you should be able to just drag them across to the Devs/DataType drawer.

The second part of the DataType system is held in the hidden Classes drawer, again in another DataType drawer. These files hold the routines that decode files into a form Amiga programs can understand. If you want to drag these files across you will have to use the show all files in the window menu to make these drawers and files appear.

Finally, before the operating system will recognise the DataTypes there has to be a line in your startup-sequence which is:

```
c:AddDataTypes REFRESH QUIET
```

This should be added before the IPrefs entry and preferably just after the BindDrivers command. If after doing all this the preference requesters still do not work, then I am not sure what is going on.

MORE CHIPS, MUM

I thought I would mention that I fixed my crashing problem I wrote in about it. It was quite simple, I had the program Disk Master on the Workbench Screen, instead of it's own screen. This caused some problems when I moved Icons and froze my System.

Now, I am getting frustrated with the Lack of Chip Mem. 2Mb is just not enough! I have 16Mb of fast memory. But there is no way to get any more chip mem. Do you know anyway to get anymore, or was this just our friends down at Commodore's mistake?

Tim Favro, darkman@i-d.com



Bit odd that, a program letting you open it on the Workbench and then proceeding to make your machine crash, well if anyone else is having the same problem, you now know how to fix it.

Unfortunately there is no way you can add extra chip memory as the Agnus/blitter chip that handles all the custom chips memory access can only address up to 2Mb of memory, and there is no way to get it to access any more. Usually 2Mb is more than enough, but graphic intense programs, now-a-days Web browsers can be included in this, can quickly chew this up.

One thing you may like to try, but I do not know if it will work, is try the VMM program that allows you to add virtual memory to your machine. You have to have an MMU to use this. One option it allows is to allocate programs any chip memory they want. This may allow programs to allocate more than 2Mb of chip memory, but as to how the custom chips will handle this, I do not know. If you are desperate it may be worth a go.

The only real way you can get around the chip memory problem is to use a graphics card, then any displayed graphics can be stored in your fast memory and display memory can be added to your graphics card. So you get the benefits of being able to have more graphics and also the display is many many times faster.

I suppose when the AGA chipset was designed, 2Mb of chip memory was thought to be enough and, on the whole, it is for most people.

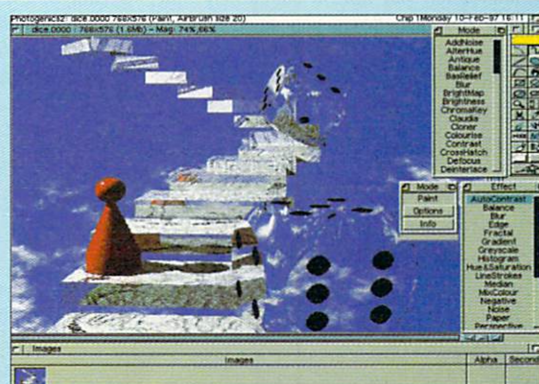
SODDING SPOUSES

I have a problem, recently I upgraded my old A600 to an A1200 with an 80Mb hard drive. Looking back through my old cover disks from Amiga Computing I found the Photogenics disks and proceeded to install them.

When I came to boot the program it asked me to enter the registration number. I frantically delved through my back issues and found that my wife had mistakenly thrown a number of my beloved magazines in the rubbish when she had a clear out. Could you please let me know what the registration number is so that I can use the software?

Mr S. Gillan, Stamford

Well, I don't know about that. I could say it serves you right for letting your wife near your stuff. I mean everyone knows women and anything technical do not mix, it just confuses their minds, which are put to much better use thinking about fluffy things and kittens. (Thanks Ed.) As I am in a good mood the registration number is 309851220, don't lose it again.



Photogenics is a lovely program, but not if you lose your registration number

CHEATING GIT



Hi there, could you please direct me to any decent Amiga cheat sites?

Steven Woods, steven.woods@northland.ac.uk



Try Timt's Amiga cheat list at http://www.netrover.com/~timt/amicheats.html it apparently has over 1100 cheats for Amiga games. So you should be able to find what you are looking for there. A good site for general Amiga games news is the Amiga Flame home, point your Web browser to http://www.niweb.com/dnet/dnetPwic/ami-flame.htm

If you have the time it may be a good idea downloading an Aminet index file and searching it for game cheats as there are a number of cheat databases on there.

ANIMATED OAP



I came to computing at the age of 80, having previously used a Sony Sketch Titler and various VCRs, believing that a computer would be little more complicated than these. My reason for buying an Amiga 1200 was that I wanted to produce animated cartoons.

Having battled with this machine for four years (not understanding the language of the instruction manuals but learning empirically by trial and error on the computer) I have managed to produce some crude animations using DPaint V. I belong to a local movie makers club and the members have now begun to criticise these, so I realise that they are starting to take them seriously, but encouraging though this is, even the few who own Amigas do not use them for this kind of work and so although they can tell what is wrong, cannot explain how to put it right.

Nowhere can I find tuition for the Amiga at an elementary level, either from local classes or by correspondence. Surely I cannot be alone in needing this?

Mrs V Greene, Harrow



I am happy to tell you that your A1200 is capable of producing quiet impressive results, given the right software and hardware as animation is one of the Amiga's strong points. Unfortunately you do not really say what exactly you are hoping to do or what specification machine you have, but that gives me a good excuse to waffle a little and give you a number of possible choices.

The type of animation you are doing at the moment with DPaint is the same process as cell animation – for each frame of animation you have a completely new screen. DPaint allows you to create as many frames as your memory allows and 'flip' through them creating the animation.

This type of animation gives you the greatest degree of freedom but requires lots of memory, unless you are happy using low resolution screens with only a few colours. You have to remember that the size of animation you can create is directly related to the amount of memory you have and the amount of memory each frame consumes.

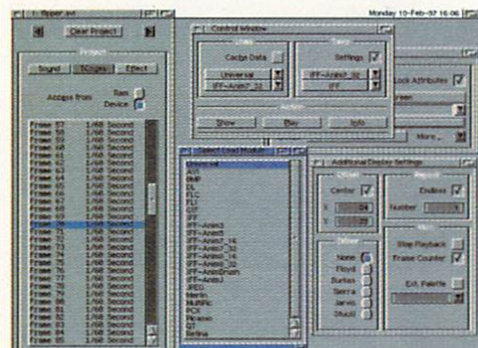
Roughly speaking, a two colour low resolution screen takes 10k. So to produce a one minute animation running at eight frames a second would require about 4800k, or just over 4.5Mb of free memory. To do the same using a 256 colour high res screen would need a whopping 150Mb!

If you are running a vanilla A1200 with only 2Mb of memory you will really need to upgrade. Accelerators are now approaching the £100 mark and I would advise getting 8Mb Ram and a hard drive will also be a necessity. You should be able to pick these two up for around £300.

This still does not help get around the problem of memory. What you can do is use a program such as MainActor, a full version was given away on our December 95 issue. Individually create and save each frame of the animation and, using MainActor, pull all the frames together into a single animation as large as your hard drive can handle.

Working this way you have a few seconds of animation loaded into DPaint, so you can work on the frames. When you are happy with what you have done, save your latest frames off and move onto the next section of animation.

Cell animation does give you the most freedom but it is also very time consuming. An alternative you may want to consider is the program MovieSetter, given away a couple of times by a rival magazine, this allows you to make lots of character animations, such as a man walking, and position them over a backdrop and animate the characters. Due to the limited number of colours, generally you have to stick with cartoon style animations, but due to the way it works with a small amount of memory you can get quite long results.



MainActor, usually used to string together individual raytracing frames, but could be just as easily used to create a hand drawn animation

Jargon box

MMU – A hardware device used to support virtual memory and paging by translating virtual addresses into physical addresses. This means hard drive space can be used as memory to store program code and data, so giving you lots more memory to play with

Chip Memory – aka Graphics memory. On Amiga computers memory is split into two separate types – chip and fast. Chip memory refers to the memory that is accessible to the custom chips and processor. This means that any graphics or sounds that need to be displayed or played by the custom chips has to be stored in this area of memory.

Fast Memory – Refers to the area of memory that is only accessible by the Amiga's processor

AGA – Advanced Graphic Array, the custom chipset found in the A1200, A4000 and CD32. It gave the Amiga the ability to display 8 bit (256) colour from a 24 bit palette

DOUBLE DISK



I was hoping you could sort out a perplexing problem that myself and a friend have been experiencing with disks we have be swapping with each other. I have an A1200 and he is using an A4000, but sometimes disked formatted on my machine will not read on his even though they are straight forward Amiga disks, what is the problem?

T. Lecky, Haunton



It sounds like you are using your friends high density (1.7Mb) disks on your A1200 and formatting them as double density (880k) disks. These will work fine on your A1200 as it has a DD drive, but the A4000 will have nothing to do with them as it sees a high density disk that is not correctly formatted. It expects a high density disk to be formatted to 1.7Mb. As a rule you should not use HD disks formatted to 880k as there is a greater chance of losing information. If you ever have this problem you need to tape over the left hole of the HD disk so the drive thinks it is only a standard DD disk.



Do you have a problem? Do you sometimes find yourself poised over your Amiga with axe in hand, spouting profanity at the stubborn refusal of your software or hardware to behave in the correct manner?

Well, calm down and swap the axe for pen and paper, jot down your problems, along with a description of your Amiga setup, and send it off to Amiga Computing Advice Service, IDG Media, Media House, Adlington Park, Macclesfield SK10 4NP. Alternatively you can e-mail us at ACAS@acomp.demon.co.uk

Boldly browsing Amigas

With the release of Voyager NG, the Amiga now has a frame supporting browser, but is it any good?



When Voyager first appeared a while back we were promised an all encompassing Amiga browser (with the unfortunately Trekkie name Voyager NG) supporting everything that HTML had to offer, including those nasty frames. We have had to wait long enough but finally the new version is upon us and Amiga users can try the delights of frames.

For a good while Amiga users have had reasonable access to the World Wide Web. AMosaic was never really up to the job, being very slow and limited to the most basic HTML tags. With the arrival of iBrowse just about all of the HTML 3.2 tags were supported and, though the rival Netscape and Microsoft browsers keep introducing new unofficial style tags, the majority of Web pages stick to using HTML 3.2. The only part of this Amiga browsers have not got is frame support – luckily the use of frames is not that widespread and many sites do offer alternate none framed sites, so we have got by, but support never hurts.

So just how well does this version handles frames? Well they work, but do not look particularly good and are not always formatted or linked correctly. Straight forward framed sites are fine, but sites containing nested frames do not seem to be displayed very well. Voyager has a tendency to unnecessarily add scroll bars., it also does not currently allow frames to be sized. You should remember that I am looking at a pre-release version and most of these problems will be corrected for the final version and frame sizing will definitely be in. So Voyager does allow you to navigate framed sites, it is just that it needs a little tweaking.

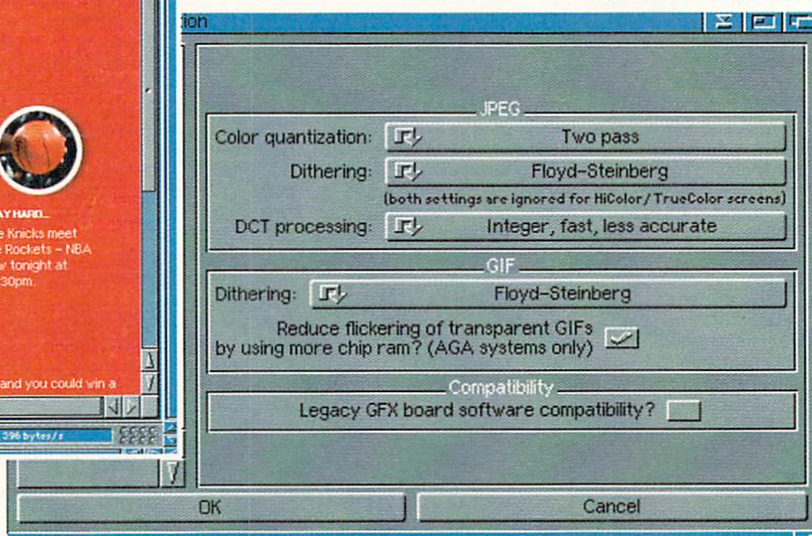
Another important addition is progressive image decoding, along with much improved colour selection and dithering giving a better colour display. Even so, running on a 64 colour screen. AWeb still has the best colour selection and graphics do look better on it. The progressive decoder works well for Gif and Jpeg images, though on an AGA machine they constantly flicker when downloading and when the page is scrolled.

Overall, I still think iBrowse is the better browser, not because it particularly displays HTML any better than Voyager (to be honest Voyager probably beats it slightly), but because iBrowse has a more accomplished interface. iBrowse has been constantly updated with the usual user feedback and there are a whole host of options and features readily available. There is no reason why these cannot be added to Voyager and I would expect to see them some time shortly.

Channel 4 has a well laid out, framed site. Voyager has a good go at displaying it but seems to have gone over the top with the scroll bars



Voyager's new advanced display preferences. You still really need a 256 colour screen, or a CyberGraphX card, to get the best results



COMPARING THE COMPETITION

The thing with Web browsers is that no two will display a page the same. This can be a straight forward difference in the fonts each browser is using – both the type of font and size will make a big difference to how a page is laid out. More subtle effects come in the form of how browsers interpret layout tags. Some do not support them so they are skipped, while others simply use different amounts of spacing in positioning text and graphic items on screen.

Most HTML tags will not cause too much of a ruckus if a browser does not support them, but there are odd ones that will cause major problems if you try to browse a page with a browser that does not support them.

Currently the HTML language is officially at version 3.2 and as a page starts to use new tags from later and later updates of the HTML language, the more the chance that a browser will not display it properly.

The original graphical Amiga browser, AMosaic, only supported the very basic HTML tags that allowed you to add simple text formatting and place graphics in a page, but with very little control over how it will appear on screen.



MUI hatters only have AWeb as their choice of Web browser, but that is not necessarily a bad thing. Seemingly faster than both iBrowse and Voyager to access pages with better colour selection, this ClassAct based browser has lots to offer

With the second version of HTML came a whole host of new formatting commands and the first big addition to HTML; tables. These new formatting commands along with tables gave Web page designers much more freedom over how they laid things out. It also left the Amiga lacking a browser that could display these, until iBrowse appeared, that is. Now the Amiga had a browser that could cope with all the Web pages out there.

Then Netscape started to take things into its own hands. Unhappy with the amount of time it was taking the World Wide Web consortium to come up with the new set of HTML tags for version three, Netscape went ahead and created its own. Version two of Netscape introduced frames, a new style tag that was different from others in that if your browser could not handle them then you could not view that Web site and you had to pray that the Web designer included a none framed version, which many did not.



For many, the best browser the Amiga has to offer and an update that will add frame support and help iBrowse catch up to Voyager is close to completion. Colour selection is still lacking but hopefully this will be addressed in the update too

Frames have been around now for well over a year and a half now, and finally a browser has appeared that will let us poor Amiga users view these sites. The trouble is, the way framed sites should be displayed is up to debate. The usual way was to have a border around each section but now browsers can make these invisible, they are also scaleable and if necessary can be scaled by the user.

Considering that companies such as Netscape and Microsoft have huge teams of programmers working full time on updating and testing their browsers, I am amazed at how well Amiga browsers and their programmers have kept up. At the moment Voyager and iBrowse, which should have a frames update by the time you read this, are at the same level as Netscape 2 when it was released.



Supposedly the king of Web browsers, and so is used to design most Web pages, if it does not look right in Netscape it probably looks odd on any other browser too. This is version three, that supports Java, as you can see

As a comparison I have looked at how the other main Amiga browsers display a framed site along with Netscape 3 and the latest version of Microsoft Explorer. If you think this is a little odd you should remember that using Shapeshifter and MacPPP you will be able to get your Amiga on-line using MacOS and run either Netscape or Explorer.



If Netscape is the king then Explorer is the pretender to the crown. Sporting a dragable interface, a la iBrowse, it has introduced a whole set of new tags that were not supported by any other browser, though pages using them looked just as good without

I'VE BEEN FRAMED COPPER

Some people love them, most people hate them, but which ever camp you fall into you cannot get away from the fact that there are enough Web sites out there using frames to make it a necessity that your browser supports them.

Originally frames were introduced to make to give Web designers more freedom over how their site looked to the user. Using frames designers could shove the company logo in the corner and never have it leave the sight of the user, making sure you never forgot who's site you were on. Along with this they could specify where exactly things should appear on screen.

HTML is a designer's worst nightmare, they can spend hours designing a Web page that looks absolutely beautiful on their machine but may look dog awful on another machine. As HTML is a machine independent mark up language it relies on the browser to format text and graphics and not on any fixed fonts or position by the original designer, though this is coming.

Getting back to frames, generally people do not like them – even Netscape, shortly after introducing them to its site, had them removed. The basic problem is that they do not add anything useful to a site and, if anything, make them harder to navigate – it's one thing you will not see on the Amiga Computing site, so there.



Voyager happily handling the table intense Amiga Computing site that looks lovely in 256 colours, and is frame free

Bottom line

REQUIREMENTS

RED essential BLACK recommended

4 Mb RAM or above



MUI 3.6

PRODUCT DETAILS

Product	Voyager-NG
Supplier	Vapor
Price	Shareware
Tel	WWW: http://www.vapor.com/

SCORES

Ease of use	95%
Implementation	80%
Value For Money	95%
Overall	87%

How DO They Do That?

Both users and coders alike should find something of interest here. **Paul Overaa** delivers the first of two tutorials on Amiga background tiling effects

Repetitive tile patterns are used to create backgrounds in a great many programs, including a high proportion of games. On the face of it, producing such effects is a relatively simple task involving drawing multiple copies of an image using what is effectively an MxN grid. Games coders use these routines for one reason only - to save memory.

Obviously if you want a repeating pattern background then it's far more efficient to load a small image and duplicate it than to load an image that's the size of the screen itself. But it's not just games coders who find such effects useful. Amiga browsers such as IBrowse also use tiling to implement the Netscape background extension tag. By creating an image and using an HTML body tag of this variety:

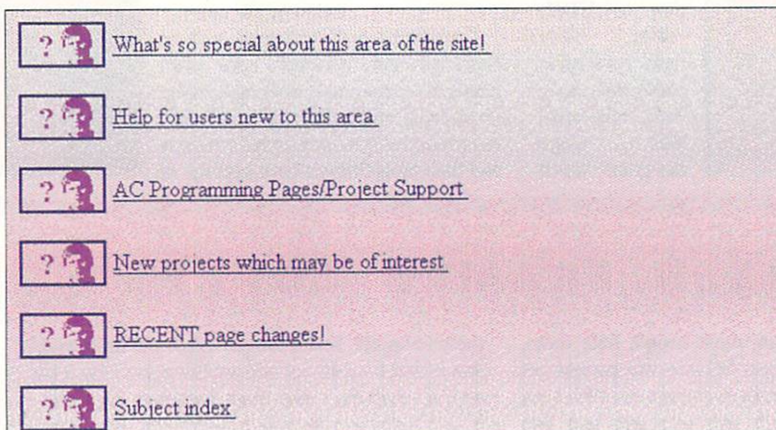
you'll instruct the browser to load the chosen image and use it to create a tiled background for the page. The main reason Net users are brightening up their Web pages in this fashion is speed – keeping images small means they are downloaded far more quickly than an equivalent full screen image.

Especially For New Coders

If you're into coding, these sorts of effects can also easily be added to your own programs with the actual source images for background band shading etc. being produced using methods such as the DPaint trick we mentioned. Having acquired a suitably sized brush it's then necessary to convert it to an Image structure using a utility like Ken Howe's BrushCon. The code form of the image, along with a routine that produces the tiling effect, is then incorporated into your program.

As far as the tiling operations themselves go, the simplest way of creating a M x N grid of image tiles is to set up a twin loop that calculates the grid co-ordinates and uses them in conjunction with, say, the Intuition DrawImage() routine and using C for example, one obvious way to code would be that shown in listing one. In practice, it's better to avoid the multiplication operations and if, as an extra refinement, we allow offset positions to be provided as function parameters we end up with the routine in listing two.

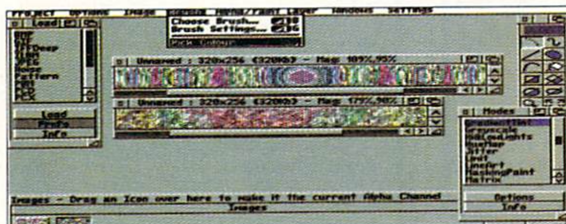
The same sort of loop thing can just as easily be done from assembler. We'd draw each row of the grid by making say DrawImage() library calls incrementing the function's left offset drawing position by the width of the image block each time. Once a row was complete the top offset value could be increased by the height of the image and the row drawing operations repeated. As with the equivalent C routines the image width and height values do not need to be explicitly provided because they're stored in the image structure itself.



A typical textured band shading background effect is used on my programming support pages at the Amiga Computing Web site

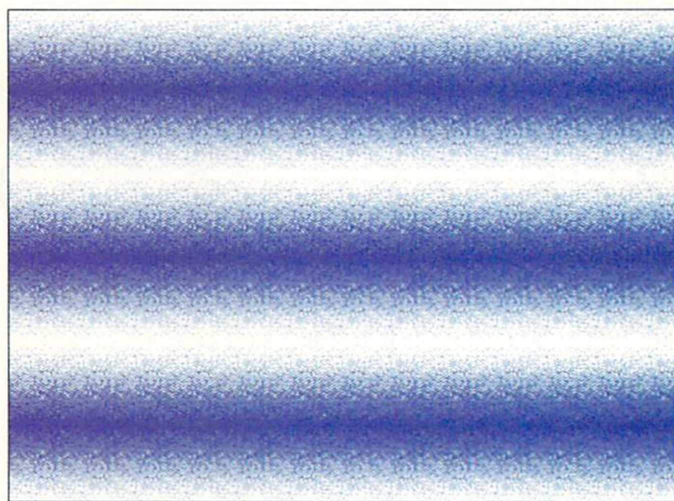
So, have we said all that needs to be said about tiling? On the face of it, yes, but although both the assembler and the C loops work, this is not the end of the story. Sure, they'll seem fine when using fairly large images but when you start pushing things by tiling large areas using small images you begin to realise that these obvious loop methods are not efficient – far too much work gets done. As an extreme example, filling an area 200 pixels deep by 400 pixels wide using a 2 pixel by 2 pixel source image means that the image ends up being drawn 20,000 times.

There's more disturbing news in the fact that, when you compare the C and assembler routines, you will actually find very little difference in the time it takes for the respective routines to execute. This is because compilers are able to generate perfectly efficient loop code and so, speed-wise, there is nothing to be gained by using assembly language.



Band Shading Step-By-Step

One of the most popular of the currently favoured Web page background tricks involves creating coloured horizontal or vertical banding effects similar to this:



With this example the banding has been made deliberately extreme so the effect can be clearly seen. In practice however, fainter banding effects tend to be used and these give an almost textured feel to the page. Such pages look good, load quickly and, best of all, once you've seen how the background tile is created, you'll realise how easy is it to do. Here's one method commonly used: First, use DPaint or an equivalent program to create a rectangle containing a dither effect:



Then mark out the area as a brush and flip it vertically...



Before pasting the flipped version end to end...



All you now have to do is save a tall thin section of this combined image as a brush like so...

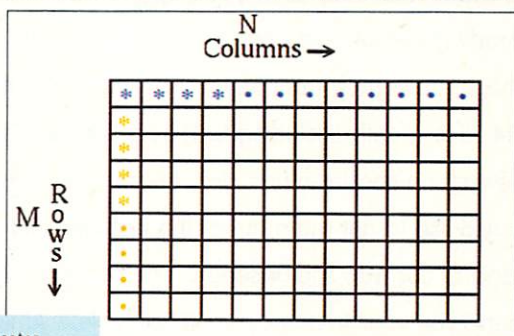


And that's it. Convert the brush to gif or jpeg form (the two formats most commonly used for Web graphics) and, when that image is used as a Eeb page background, the browser's tiling action will automatically produce those band effects. Needless to say if you want to produce vertical banding instead of the horizontal form you simply shift all the operations around by 90 degrees and save a section that's wide and narrow.

You can use pretty much any art package you like for creating these initial tiles. Personal Paint is already popular and the new Draw Studio package looks set to attract its own band of enthusiastic followers. The other main offering, Photogenics, is particularly useful since the streak and gradient loaders can produce suitable images directly. With any of these packages attractive band shaded backgrounds can be easily produced with images 10 pixels wide by 100 pixels deep and occasionally even smaller brushes will do the job!

You Must Be Kidding

Now if I told you that, with the example just mentioned, it's possible to reduce the number of drawing operations from 20,000 to less than 40 (still using the same original 2 x 2 image size) you'd doubtless think I was joking. But I'm not and obviously this sort of efficiency gain makes for some pretty spectacular speed increases. It does make the coding a little more involved but don't panic - next month I'll be explaining exactly how this improvement is achieved.



Photogenics is very useful for tile creation since streak and gradient effect type loaders can produce suitable images directly

Check Out The CoverDisk

You'll find source code and runable examples using both C and assembly language along with a ReadMe file that gives some extra details of the programs themselves. Just to whet your appetite you'll also find an example that utilises the trick that we'll be discussing in the next instalment (the source code for this latter offering however comes with next month's issue).

```
draw_row    jsr         _LVODrawImage(a6)       a faster
alternative
subq                    #1,d2                   decrease
count
beq                     next_row
move.w      a4,d1                   set top offset
                        add.w       d4,d6
form new left offset
draw_row2   move.w      d6,d0       needed for library func-
tion call
move.l      a2,a0       restore rastport pointer
move.l      a3,a1       restore image pointer
bra                     draw_row    keep going
next_row    subq                    #1,d3       decrease
count
beq                     draw_end
move.w      d7,d6       reset start left offset for row
move.w      a5,d2       reset column count
move.w      a4,d1
add.w                   d5,d1
move.w      d1,a4       top offset for next row
bra                     draw_row2
```

Listing 3: Part of a DrawTiles() 680x0 routine which works in much the same way as the C examples provided.

```
void DrawTiles(struct Image *image_p, struct RastPort *rastport_p,
        WORD rows, WORD columns)
{
WORD left=0, top=0, i, j;
for (i=0;<rows;i++)
        {
        for (j=0;<columns;j++)
                {
                DrawImage(rastport_p,iamge_p.left+left_offset,top+top_offset);
                left+=image_p->Width;
                }
        top+=image_p->Height;
        left=0; /* reset for next row */
        }
}
```

Listing 2: Another tile creating possibility

The Internet is a whole new world of exciting things just waiting to be discovered. Providing, that is, you can get through.



Karen aims to connect you first time, every time.

Here at NETCOM, Karen makes sure you do just that. You see, she helps us to operate more modems per customer than other Internet Service Providers – which means you should never hear the engaged tone.

Our huge web cache in Bracknell (which is packed with all the most popular sites and games) also means you don't end up trying to connect to the same server at the same time as six million other surfers.

You'll also always be able to get through to our helpline if you get stuck, as our technical support staff are here 24 hours a day, 365 days a year.

Karen and her modems also save you money. Because they're the fastest available, you'll spend less time on-line downloading files and so have smaller phone bills. Not that you'll be spending a lot of money; all we ask is a flat fee of just £14.95 a month (including VAT) and you can have your first month for a special introductory price of just £5.95.

If you'd like to get more out of the Net with NETCOM call, fax, apply at our web site or send us the coupon below. We'll then send you your free copy of NETCOMplete Amiga that'll have you better connected within 10 minutes.



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The Internet people it's easier to get on with

PLEASE SEND ME MY FREE COPY OF NETCOMplete™ Amiga on diskette. When I register, I will receive my first month for £5.95. I'll be using the Net for ☐ business ☐ pleasure ☐ bit of both. Send completed coupon to: Netcom Internet Limited, Freepost TK 2238, Box 512, 28 Old Brompton Road, South Kensington, London SW7 3BR.

Name: Mr/Mrs/Miss/Ms ____________________

Address: ____________________

____

Postcode: __________ Telephone: __________

From time to time we may pass your name on to other, carefully selected companies who may wish to mail you with offers. Please tick here if you prefer not to receive such information. ☐

RGV01



Ezra Surf takes a look at what you readers are ranting about. This month you tell us about Amiga support in your country and reminisce about the good old days...

REMEMBER WHEN?



The current local time is 1:36:07 am. The date is 1/30/97 and here I sit using my ever faithful friend and companion the machine of machines, the doer of all that is asked which is a swear word on the lips of all avid Amigans – the Pentium (trumpets blow, fireworks explode).

Don't get me wrong, I was one of many that bashed the IBM PC. I used to say "Look at that clown over there, he has to buy a game card just to use a joystick". "And this guy here is buying something called a sound card, and yet another person buying a video card".

"They should have bought an Amiga" I would say. This statement would get under their skin and I would grin at them and stroll away. But in hindsight I think maybe we were the fools. After all, which machine survived the computer war? The Macintosh came through it as nothing more than a toy for the rich, the Amiga was attacked on all fronts with no possible hope of survival and was bombed into oblivion. Yet we, the faithful, held out, being lied to the whole time. "Help is on the way" they said. "Don't give up, we are not defeated yet."

Well this is, at best, nothing more than ancient history. And what destroyed our beloved Amiga was not technology, or lack of it, but lack of foresight on the part of those idiots at Commodore that thought they had it in the bag. I think greed at the top of the corporate ladder had a lot to do with it. After all, how can you lose as much money as the big wigs at CBM said they lost when your product is selling as well as it had only a short time before?

I would hang out at the local Amiga shop after hours with the man that sold me my one and only Amiga. We would talk for hours about the old days when we all got into this computer thing – the Atari, the Commodore 64 and so on. He would be working on Amiga 4000's and 1200's and I asked him, "What are they and can I get one?" His reply was "Get one, every one I get in is already sold. If you want one, the best I can do is put your name on the waiting list. They are sold almost as fast as they are built and I can't keep up with the demand".

Well, my name is still on that waiting list. But I eventually bought an A500 that was sitting with the used hard drives and controllers and was happy with it up until that fateful day when I made my weekly visit to my friend, the 'Amiga man'.

I swear he had tears in his eyes when he told me CBM was going belly up and that he was dropping his support for Amiga and concentrating his efforts into his IBM line. Now I ask, how can things go that bad when you have machines that are that hot you can't pump them out fast enough?

We all know what happened next and it is still going on. I predict that whoever owns, or will own, the rights to the Amiga will repeat history, only this time Amiga will fade into the dust and be nothing more than a fond memory for each of us to look back on. We should all move on to the future, I have. I love my Pentium (almost as much as my wife, or so she says). My A500 now sits in a spot to my left instead of in front of me.

I am still working on trying to get the damned German 020 accelerator board with 4 megs of 32bit ram and SCSI controller with 2megs 16bit fast ram to work in harmony so I can find my SCSI hard drive and access my system from it – I only started this project in 1994.

My next project is file sharing between the Amiga and the PC. My wife asks why and that devilish grin from the past returns to my face as I say "'Cause that's my Amiga". Oh yes, my Amiga is outdated by even the standards set back when our world fell apart, but enough is enough. How long can you hold on to a dream of a machine returning (at least to America, maybe chances are better in Europe, I don't know) after all these years of being told this company owns Amiga, no, that company owns Amiga, no it's a toss up again. Wake up people, we are being played as idiots in this 'game' nothing has changed yet nor will it change as long as someone keeps making a buck out of you.

They made bucks off me. I bought my Amiga 500 back in '92 or '93 I always thought of computers as home game machines and in my mind the Commodore 64 was the only machine worth considering. Well I played games through the 1980s then I discovered graphics and midi, the 64 wasn't the greatest at these. Not having the cash for a new system I made do with 64 and added gadgets and software when I had the extra money. Years past and I could afford better, my sights set on a 1200, maybe even the 4000. That never happened – my name is 'on the list'.

I settled on a used A500 and dumped tons of money into it via custom chips, new OP system, SCSI controller, SCSI drive, 16bit memory, 68020 accelerator card made by some crap heads in Germany who sent them to America with a German operating program disks (of which I am scouring the Web trying find out if anyone translated the German docs into English so I can use what I paid for). I also bought 4megs of 32bit memory for the accelerator then finished off by buying a different monitor and this doesn't include my nervously hacking a modification onto my motherboard. Where does it end? Well, for me, it ended last year when I had enough, I don't know where this Amiga 'game' will end, and deep down I really don't care anymore.

But if I am wrong, and Amiga survives, guided by the hands of a company that cares about the machine and its history, please don't forget the many users that have old machines and would dearly love to still use them. I know Viscorp is doing this and Escom did that and Amiga Technologies exists, but it is still a 'game', only with more players hoping you keep on holding on and dishing out .

Stop and think of all that has happened since the demise of CBM. I think most IBM converts were Amiga users who, like me, got sick and tired of the 'game'. I feel if support for these companies stopped it would take about a week to weed out the money grubbers from the truly serious people who care about bringing the Amiga back to its former glory.

Go ahead, buy that IBM you won't be sorry, yeh I know. But then I will have to learn Windoz – it isn't Amidos but it works, it truly works if you take the time to learn it. Keep your Amiga for whatever purpose you wish and enjoy computing on both sides of the fence.

DFirest



Well, I hope you feel a lot better after getting that off your chest. Okay, I can understand people who are getting sick and tired of the whole situation and want to go out and buy a PC but surely after all this wait something has got to happen soon - I mean, really, it has to... I don't like the thought of the alternative.

For those who have gone over to the PC, like you say, you can still use your trusty Amiga and that way you get the best of both worlds. By the way, I do fear for your sanity if you're still sitting up at 1.30 in the morning on the computer... your poor wife!

WRITE IN!



If you have something you need to get off your chest then put pen to paper and write to ESP, Amiga Computing, Media House, Adlington Park, Macclesfield, SK10 4NP. You can also Email us at ESP@acomp. demon.co.uk We have various software bundles to give away for the best letters (please indicate whether you'd prefer serious software or games). We do try to reply to all Emails and letters, but at busy periods this is sometimes not possible so please bear with us

New support



For many years I have been using the Amiga for all my computer needs. I started from the humble A500 when it was first commercially launched in this country and from there upgraded with the extra half meg of memory, then to the A1200, with which I got a monitor and an 030 accelerator with 4meg of memory.

For a while last year I was contemplating switching over to the PC. I am currently reading for a master in computer programming and electronics and it seemed that I was going to have to sell out to be commercially acceptable, I thought it the only possible move. Don't get me wrong, I love my Amiga, always have and always will.

Something has happened that has made me change my mind and decide to stick with the Amiga market – the PHASE5 A/BOX. After all the commotion over who owns the technology and no-one doing anything about it, Phase 5 has developed this (hopefully) AMIGA compatible computer for an amazingly low price. As an electronics engineer the product turned me on at the first glance of the spec. It also opens up so many possibilities for a programmer.

For all those out there who are in the same position as I was, let me just say, if Phase 5 can keep its promises (which they have done in the past), the Amiga will be alive again. Support from the Amiga's rightful owners (whoever they may be) will be a long way away. Phase 5 has committed itself and thus deserve all our support.

Rob Millward



What Phase 5 is trying to do is very commendable. As you're probably aware, it needs the AmigaDOS to do this and hopes the new owners will sell them the rights to use it. The company are also at present trying to write its own version of this. Alternatively it will be relying on p-OS which is near completion and will be perfect for the ABox - however, there is no software yet for p-OS.

The good news is that Haag & Partner, authors of Storm C and Art Effect, is already saying it will support p-OS and is in the process of porting its software over to it.

Hello from Denmark



How do you do, AC? You say you don't get many letters from Poland, how many do you get from Denmark?

Anyway, Piotr tells us there are just two Amiga only mags in Poland. In Denmark we only have one, and we (yes, you can meet me!) could use more readers. So any Danish and Norwegian people should contact us at:

AmigaAdvis@vestnet.dk or snailmail:
Amiga Advis
Jernbanegade 47, 4450 Jyderup
That's all, folks!, Morten Skov
Denmark



Okay, there's your free plug! Anyone else want to let us know what the Amiga situation is like in their country? Write in to the usual address...

And hello from Australia



I am a fan of Amigas in general and will support it to the end, but I am afraid I will be forced to sound the death-knell for the Amiga in Australia very soon.



Support for the Amiga varies greatly depending on the country.

There are only two (count them) Amiga dealers in Sydney (the largest city in Australia). The largest of these, Amadeus Computers, has slowly shrunk its Amiga section (it is forced to sell PC systems to make up the shortfall) until it now fills 1/5 of the total room of the business. It used to fill 1/3 of the total room. They have even been forced to stop selling Amiga games – they cannot afford to have them rated by the Government anymore.

Everyone I know, except in the (tiny) Amiga circles I inhabit, has either written off the Amiga as a dead computer or is ignorant of it. So, I plead to Amiga Technologies (or whoever is now in charge of the Amiga) to do something to stop the death of the Amiga. We don't need PowerPC's (yet), we don't need ignorance, we need the public to be made aware of what the Amiga is like now, not in 1985, as everyone seems to remember it here. A good advertising campaign would go down well for starters.

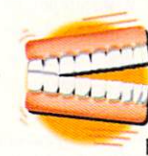
The last time I saw an advert for anything close to Amiga technology was in 1989. It would do no harm at all to start again, not just in Australia, but everywhere the Amiga is sold. Sales would pick up, more people would show interest and the Amiga would live for another day.

Matthew Briggs, Winston Hills, Sydney, Australia.



As we saw in the survey in last month's cover story, the Amiga situation varies from country to country. It's very sad that support is dwindling and like you say, some advertising would be great right now. We hope that it will be one of the new owner's main priorities.

Net Worries



I've been using the Internet for about a year now and I think its fun in all respects, but I use it at school and not at home.

I have all the equipment to go online but it's just all the hassle of getting everything set up. I mean if you want to Email some one you need a program like Yam, or if you want to chat you need Amirc. Also there is the hassle of getting on line in the first place. There are very few providers who fully support Amiga users and even fewer who give you the necessary software ready to go on-line. It is very hard for someone who has little knowledge to get all the software set up and working fully. I use my local BBS for Email as it is free and because he is half Amiga and PC he can give me the support. It is also the cost as well not only do you have to pay your phone bill but there is connection cost and monthly charges.

Why can't AOL bring out their software on the Amiga. You only need one HD disk or two DD disks (which could come as cover disks and you install it and your away. All the programs are built in. They have chat, www, ftp and a whole lot of other stuff. I know their WWW browser isn't that good but they offer a much wider range of services.

It would be great if something like this came out on the Amiga. It would save the need for lots of separate programs. Also the way it is billed is good as you only pay for how long you are on-line for. They also offer you five Email Address This would be a lot cheaper for someone like me who doesn't use the Internet enough to warrant the 10-15 pounds bill. Please somebody bring something like this on our excellent machine.

Nigel Holland



The more ISP's we can get to support the Amiga, the better. We recently ran a feature which covered which ISP's were supporting Amiga owners - we were pleasantly surprised. If anyone knows of any more Service Providers though who are providing a good service for Amigans please let us know at the usual address.

There are tons of free software, reviews and tutorials to be found on the Internet. **Gareth Lofthouse** constructs an Amiga on-line treasure map

The Great Giveaway

here do you go if you want to catch the latest Amiga rumour? Or download the latest update to your favourite piece of software? Or exchange gossip with other Amiga enthusiasts located on the other side of the world ?

The answer should be the Internet. Thousands of Amiga users have already banded together to cover up the gaps left after many of your computer's commercial companies went bust or moved on. Whereas the Amiga scene on the high street is currently almost non existent, hardcore Amiga fans are finding the Internet an unbeatable resource. Just as was the case years ago, the lack of proper customer support from Commodore forced ordinary users to develop the machine's capabilities themselves and the current difficulty in the Amiga market has provided a catalyst for the growth of a fanatical support network on the Web.

The Internet's value to Amiga owners is hard to overestimate. In countries where commercial Amiga support has all but disappeared, the on-line community has proved the only source of relevant information or product updates. But even in Britain where the market remains relatively buoyant, there are resources on the Internet that can hugely enhance your enjoyment of your computer of choice. The message is, if you want to keep in touch with the latest Amiga developments, you have to get on-line.

Because Internet magazines that seek to chart the Net have focused almost exclusively on PC resources, Amiga Computing has decided to redress the balance with a new review guide to the best Amiga-specific resources on the Net. Happy hunting...

Amiga Web Directory

http://www.cucug.org/amiga.html

Still the best Amiga Web site on the Internet, this unspectacular but functional service has become a kind of unofficial user group for the global on-line community. Certainly it's by far the best place to start looking for Amiga related material.

News and rumours tend to get posted to AWD before they get anywhere else, so this is the place to be when looking for news of the buy-out. There's also a huge database of Amiga product reviews and links to just about every Amiga related site or newsgroup to be found on the Internet. There's also **free technical advice**, including tips from US Robotics on setting up its modems for optimum use with Amigas.



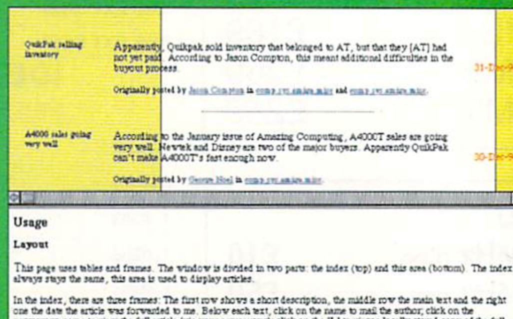
AWD - the best Amiga site on the Net

Of course there are freebies galore at the **Shareware Support Index**, a section of the site that catalogues a huge number of programs including productivity applications, games, comms, emulators. It's huge, though not so daunting as Aminet can be to the first time visitor.

The only complaint relates to Agnes, the site's internal search engine. AWD is so huge, and so packed with diverse material that it really needs a tool to help users seek out the resources they need, but sadly Agnes hardly ever works !

Newsgroups

The unglamorous underbelly of the Internet it may be, but this is where all the news and gossip gets exchanged and where good Web sites like the Amiga Web Directory get a lot of their information from. Furthermore, if you have any sort of technical problem or query, newsgroups are by far the best place to go on the Net for advice and solutions.



There are dozens to choose from, but the best starting point is probably alt.amiga, the all round Amiga newsgroup. Alternatively, if you're a beginner using the Amiga on the Internet head for the excellent comp.sys.amiga.introduction.

After that there's all sort of newsgroups covering specialist areas including discussions on emulation, MIDI music, the thriving demo scene and so on. For a full list of relevant newsgroups head for the Amiga Web Directory (http://www.cucug.org/amiga.html).

Alternatively, if you're looking for Amiga news and rumours and sifting through that lot sounds a bit time consuming, then we can heartily recommend Chris Kemp's **Amiga Network News** (point your browser at http://194.22.56.227/homepages/ckemp/News/default.htm).

This brings all the most interesting news and rumours from all over the newsgroups to the Web, and is a good a way as any of keeping up with the latest gossip with the minimum fuss.

AmigaZone

http://www.amigazone.com/
Boasting over 40,000 visitors, AmigaZone is currently the only commercial on-line Amiga service. It offers over **25,000 files**, thousands of Amiga Usenet postings, and articles are downloadable for reading off-line. Amigazone also features live chats every day of the week, and prizes are up for grabs on Sundays including the like of CD Rom drives, cool software and so on. Mail and news can be read on-line, but you can also save money on your phone bill by reading it off-line using software like Q-Blue.



A members only Amiga club

You can access this members only service using telnet or rlogin and more recently its been possible to use your Web browser for access. At $19.95 a month, the service isn't exactly cheap, but that fee also buys you unlimited use of CalWeb UNIX shell account with all the usual shell tools including e-mail, news, FTP, telnet and 10 Mb of free storage - so you can even host your own Web site their if you wish.

AmigaZone offers a free trial for a week - details are available at the URL listed above.

The Amiga Home Page

http://www.omnipresence.com/amiga/
This is a large and comprehensive site, but for most purposes it doesn't quite match up to the Amiga Web Directory. There's the familiarly huge array of links for news, rumours, magazines and shareware software. However, this is probably the best place to go if you want contact information for your nearest Amiga user group.

The site is also worth a visit if you're looking into the Amiga illustrious history in film and TV production, and it host probably the best potted history for the machine you'll find anywhere.

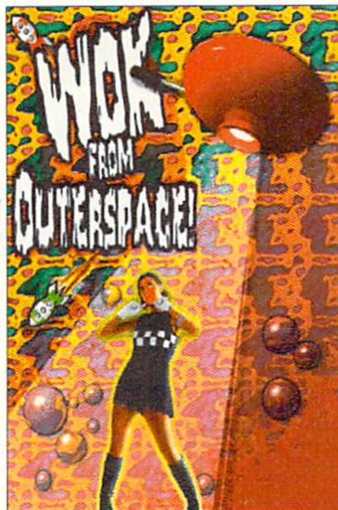
Hot spots Almathera

http://www.almathera.co.uk/
Attractive design marks Almathera's Web site out as one of the new breed of professional Amiga resources. Fast and glossy, it's not just the Internet equivalent of a pretty face either; as well as on-line order forms for Almathera's highly respected product list, you'll find some of the best freebies available for the Amiga enthusiast on the Net.

Photogenics 1.2, Almathera's superb image manipulation package is the benchmark graphical program for the Amiga, and this version can be downloaded for free. You can also order the 130 page manual from the site for a special offer price of £19.95, which will help you maximise your use of the program. However, it is fully usable without the manual, you'll just have to spend longer some of the more unusual features by trial and error. Alternatively, if you've already got Photogenics version 2, visit the site for the latest patch which includes some fixes and a number of new features for AREXX fans.

Almathera have also announced a new series of commercial products that will be downloadable from the site, the first of which is **XCAD2000**. This is arguably the Amiga's best Computer-Aided Design and structured drawing program, which originally cost £124. If Almathera continue to make unrestricted programs like this available for free, there are going to be a lot of happy Amiga enthusiasts flocking to their site for a long time to come.

While you're there, it's also worth popping into Almathera's gallery, with superb artwork from talented Photogenics users.



Almathera's downloadable Photogenics can produce stunning results

Vaporware

http://www.vapor.com/
Don't miss out on some of the amazing comms goodies that are available from this site. First off, you'll be presently surprised to find that this is a frames based site. This is unusual because Amiga browsers until recently haven't supported frames; however, you can download Voyager, the browser that is frames compatible from here.

That's not all, though. There are tons of products to preview and try out here relating to Internet connection and comms, plus the latest news on relevant products. Bookmark it immediately!



If it's comms software you're after, Vaporware page is unbeatable

Aminet

http://wuarchive.wustl.edu/~aminet/
Cheapskate Amiga users need look no further. This is the largest collection of files on the Internet, and fortunately for you they're for use exclusively on Amigas! There's so much shareware available for downloading it's daunting, though everything's catalogued in helpful directories. There's also a directory to cover newer shareware programs as they appear on the site, so its relatively easy to keep up with the latest free stuff as it is made available.

Cloanto

http://www.cloanto.com/
Like Almathera, this Amiga stalwart company has realised the value of supporting customers over the Internet, and this flashy looking site is in the middle of an ambitious expansion.

The site host Amiga software that's catalogued and accessed under an unusual clickable page unusually designed to look like your familiar Workbench screen.

Cloanto, maker of the ever popular Personal Paint and Personal Suite software, has also put its software and support files in the "biz/cloan" directory of Aminet. This will give access to useful files including demo versions of the current software range, scripts and macros, developer documentation and enhancement patches. It has also just made the **CPU blitting module** available on Aminet (biz/cloan/PBlit_68k.lha), which allows Personal Paint 7 to become the first program to actively exploit the full functionality of both the Graphics library and the Amiga blitter applied to bitmaps stored in Fast RAM. See this month's news story for more details.

Of more interest to those awaiting new products will be the section devoted to Internet software. As yet Cloanto's plans for this area are still secret, but the fact that this long established Amiga company is focusing its efforts so much on the Internet can only bode well for the future.

Cloanto, making software updates available on Aminet



SoftLogik Publishing

http://www.softlogik.com/

The kings of Amiga DTP (thanks to its excellent Pagestream package) are represented on this snazzy looking site, though unfortunately it was designed using Apple Macs rather than Amigas. This reflects SoftLogik's increased focus on Macintosh products, but the site still caters mainly for Amiga users.

Although there's a 'Free Stuff' page, this is currently rather disappointing for Amiga users. The only reason to visit it so far is to get your hands on the **ProDraw Clip Converter**, a small utility that can convert Professional Draw Clip files or directories into the more standard IFF DR2D format so that they can be used by other Amiga programs.

Otherwise the site, with its on-line order forms, serves as a useful contact point for Amiga enthusiasts interested in the development of products like Pagestream and Type Smith, an Amiga font editor and converter. North American readers are also able to order Digita's products from the site.

A glossy site, but not much to play with at Softlogik

Quik Pak



A boring site, but good for buy-out and product news

http://www.amigasupport.com/quikpak/

This rather bland looking site is not the most prestigious of marketing tools on the Internet, but then the front-running bidders in the Amiga salvage operation have got more important priorities to deal with at the moment. This site is still a must for bookmarking if you're interested in the latest update on the Amiga buy-out story, plus news of the exciting new machines the company is already building. "Now things are happening.." the site proclaims. Who knows...maybe it will be true by the time this issues in print.

Cool Dudes Contact your Amiga heroes over the Internet...

Dave Haynie

http://www.iam.com/people/dave.html

Another of the original Amiga godfathers, Dave is currently closely involved with PIOS and its attempts to build a new range of computers that carry on the spirit of the Amiga computers. The above Web site will give you a brief bio of Dave's contribution to the Amiga story, and there's also an e-mail address allowing you to post your queries to the great man himself.

Carl Sassenrath

http://www.sassenrath.com/

Find out what one of the original Amiga design heroes has been up to since his dramatic resignation from Viscorp at the end of last year. Sassenrath created the Amiga's multitasking kernel; now his site details the development of a new portable language called LAVA and his proposals for a new approach to computing. Interesting stuff....

Phase 5

http://www.phase5.de/

OK, unsurprisingly considering this is the site of the innovative German hardware developer, there's nothing in the way of freebie software to be acquired here. It's worth a mention, however, because it represents one of the best examples of how a company can offer Amiga enthusiasts excellent customer support over the Internet.

The technical support section, for instance, includes FAQs on Blittersoft's accelerators and graphics cards. There's also an errata section detailing known problems with their products, and downloadable software updates. If you've got a problem and that doesn't fix it, then you can e-mail you bug reports to Blittersoft's specialist labs.

Developer and retailer support is also available, as well as the latest news about what the company is up to. The latter section is likely to prove a popular draw over the next year, as Amiga owners eagerly await news of the Power PC Amiga project and further details of the A/Box wunder computer.

Phase 5 prove that the Net can add to excellent customer support

Top 5 Downloads

A few of the most popular Amiga downloads at the moment:

MUI v3.7
http://wuarchive.wustl.edu/~aminet/
Multi User Interface is needed to use MUI programs, with there vastly improved interfaces

IBrowse
http://www.hisoft.co.uk
Arguably still the best browser for the Amiga, try it out for free first

Voyager
http://www.vapor.com/
But if you want a browser with frames compatibility, get it and other excellent comms software at this site

PCX
http://blittersoft.wildnet.co.uk/
An exciting new, software only PC emulator for the Amiga - download the demo here

XCAD2000
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C programming Part 4

More C coding help from **Paul Overaa**, this month it's variable types and operators which come under the spotlight

'C' what I mean?

The main objective this month is to look at the way C represents numbers and text while outlining a few operations that can be performed on them. Some of the topics might seem heavy going but don't worry too much - most things will be explained again whenever we encounter them in example code.

Data items used within a C program fall into two basic categories - those whose values remain fixed and those whose values change. For obvious reasons the first group are called constants and, for equally obvious reasons, the second group (since their values can vary) are called variables.

C allows any number of different data types to be defined but essentially all are derived from C's four basic data types - int, float, char and double. We met the int (integer) last month, but for easy reference, Table 1 gives the four type specifiers available. In addition to these a number of 'qualifiers' can be applied – short and long, which apply only to int type variables, and unsigned and signed which apply to either int or char type variables. On the Amiga a long int is a four byte (32 bit) number, a short int two bytes (16 bit), and char (character) variables, as you might well have guessed, are single byte (8 bit) values.

These qualifiers just give the programmer the chance to use memory more efficiently. If, for instance, we were dealing with a variable we knew would never be negative and never be used to hold values greater than 255, we could declare it as an unsigned char. The compiler would then realise that we are saying this item will never require more than 8 bits of storage and would therefore reserve just 1 byte resulting in no memory being wasted.

Text strings

You will use text strings in many programs and, as we've seen previously, static (ie constant) text strings can be written as a sequence of characters enclosed in double quotes. When you define variables for holding text strings however, you have to set up an array of char sized locations using a statement such as:

```
char mystring[]="TEST";
```

I will be explaining about arrays and text strings in more detail next month but for the moment the important point is that these strings are represented as a series of consecutive memory locations (each holding one character of the text) along with a terminal null (zero byte) value. This means that if, for instance, you create a four character string "TEST" the compiler will actually store it using 5 bytes of memory like so

```
1       2       3       4       5
T       E       S       T       0
^                               ^
|                               |
|                               |
start of string      terminal null value
```

I've mentioned this because one favourite pitfall of C coders in general is allocating memory for text strings and forgetting about the trailing null. Don't dwell on it for the moment (you'll get plenty of examples next month) - just remember that, with C, a text string of N characters will always require (N+1) memory locations.

C supports all the normal arithmetic operations including addition (+), subtraction (-), multiplication (*) and division (/). It also provides a number of relational operators such as greater than (>), less than (<), equal to (==) and not equal to (!=).These are normally used in conjunction with loop and if-then style conditional tests. Doubtless most of you will be familiar with the general ideas of such things from languages like Basic, so I'll delay giving any statement examples until later when we deal with C's conditional test arrangements.

One thing we do need to deal with is assignment. For assigning values to variables a single = sign is used. Its simplest use is in statements which take the form:

```
variable = some expression or value
```

The expression on the right side of the = sign would be evaluated and the variable on the left-hand-side set to the result so if, for instance, you wrote:

```
area = area + 10
```

the area variable would be set to a value 10 more than its original. For assignments such as this C does in fact allow a shortcut - the above expression can be written as...

```
area += 10;
```

These types of contraction (many other C operands can be used in this way) often confuse newcomers but you do need to be aware of them since they are commonly used.

Just to make matters worse C also provides two other operators, ++ and –, which are a little unusual. They're used for incrementing and decrementing variables and allow operations such as...

```
x = x + 1;
```

to be written as....

```
x++;
```

Punch drunk already? It's not surprising - we've got through quite a bit this month. I have however put some example code, along with additional notes, on the coverdisk and hopefully these should help put the more important issues into perspective.

char	a single byte capable of holding one character.
int	an integer, usually reflecting the natural size of an integer on a given computer/processor.
float	a single precision floating point number.
double	a double precision floating point number.

Table 1: C's fundamental data types

```
1:>april_test
Study the source code to see where
 these numbers came from!
0
10
100
101
102
0
0
10
100
101
101
102
0
0
4
1:>
```

This is the type of output you'll see when you run this month's example code

Naming Variable and Constants

Certain words, that are reserved for use as keywords in the C language, like int, float, char and so on, must not be used as variable or constant names. Other that you're free to choose pretty much any name you like. They can be formed using letters, digits, or the '_' the underscore character (names must not however actually start with a number).

All C names are case sensitive and programmers (because of a long established convention) tend to write constants in uppercase and variables in lowercase. It's worthwhile maintaining this convention because it helps programmers to understand each other's code! Perhaps the most important thing however is to get into the habit of using names which are understandable - this will make your programs easier to read.

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On the Disks: Photoegnics - full program



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Get organised with minimal fuss. Amiga Computing finds out if this really is possible with Hi-Soft's latest program

Disk Magic2

Disk Magic first appeared to the Amiga world back in October 1994 and its ease of use made it one to recommend. Now though, HiSoft has taken into account what the end users have said and given it a few tweaks and new features that should improve on the original.

What makes DiskMagic stand out from other file managers, such as Directory Opus, is that it is extremely easy to use and highly configurable - so configurable in fact, that no two versions will look the same. When we looked at the original quite a while ago, our reviewer noted DiskMagic is more a hybrid between Version 4 and 5 of DOpus. For example, it has "DOpus 5's multiple preferences editor and fluid window positioning but has the source/destination, non-multitasking simplicity of DOpus 4."

The program has a font sensitive, resolution independent interface which means you can run it on any resolution screen with any font you wish. On the screen you will see two windows which show Directories One and Two - one of which is the active window and source directory. If you then want to copy, for example, the other becomes the destination directory. The middle screen shows the device list windows where you can see drives and devices. At the bottom of the screen you have gadget buttons (either represented by text or a graphic) which are unlimited in the amount you can have. Another useful feature is the Status bar which shows how much free RAM you have plus date, time and CPU load.

The package also proves useful as a slide viewer. You can set a time for each picture shown rather than clicking on the mouse button. The product's main selling point however, was that it can work with LHA and LZH archives as if they were normal directories. A new feature in this version is the ability to also recognise LZX archives.

So what else is new and is it worth shelling out for whether you have the original or are looking for a completely new file manager? Well, that's going to be up to you and your own specific requirements. The best we can do here is to give you an idea of what has changed or what has been added and their usefulness.

The original DiskMagic had a button where if you press and let go the directory window will read in the parent directory, but by holding down the button you could access a list which contains previously read directories that are buffered in RAM. This has changed slightly so that when you click and hold down on this gadget it will change from an upwards pointing arrow into a downwards pointing arrow. When the mouse is released a list appears of the previously read directories and two arrow gadgets and a move gadget let you scroll through. You then click on an old directory or the screen to close.

> **While DOpus 5.5 is best left to the techies, DiskMagic2 remains user-friendly to the rest of us**

A totally new function, called Copy Newer, copies files from the source directory to the destination directory. A file in the target directory will only be overwritten if the source file is more recent. Show DataType is also new and uses Workbench 3 DataTypes to display pictures. These can include JPEG or GIF if the appropriate DataType has been installed. This process however, does need technical knowledge.

Another small but useful change is that the device list now shows the amount of free storage space available in Kb or Mb and as a percentage. Files can also be copied and encrypted and a requester opened for password entry. A Decrypt function does as you'd expect and a password must be given before it will do this.

DiskMagic 2 now contains the program SuperDuper which lets you copy entire disks. It also includes the ShowHotKeys program which means you can keep track easily of your hot keys and avoids you defining the same hot key by displaying a list of current hot key definitions.

You can now completely arrange the windows to your own preference and then save it. The default setting arranges the windows from top left and the other four settings activate one of the user positions.

Other features have been improved, for example when you wish to delete something you can now display a progress indicator bar and there is also a Fast Delete option. You can now also play a Soundtracker module. AC

Choice is Yours

DiskMagic has remained simple and easy to use. The Drag and Drop makes life very easy and is a lot less fiddly than Directory Opus 4. Most people would agree that it is a lot simpler on the whole than DOpus 5.5 and, while DOpus 5.5 is best left to the techies, DiskMagic 2 remains user-friendly to the rest of us. Saying that, the way you add a new file type is a bit long winded and requires technical knowledge.

The manual included is from the original version with a booklet containing the amendments. These together should provide enough information to get you up and running - if not, 30 days technical support is provided free of charge.

Bottom line

Requirements

RED *essential* **BLACK** *recommended*

2+ Workbench

1 Mb FREE RAM

Product details

Product	DiskMagic 2
Supplier	High Soft
Price	£39.95
Tel	01525 718181
Email:	sales@hisoft.co.uk

Scores

Ease of use	**85%**
Implementation	**85%**
Value For Money	**80%**
Overall	**83%**

Lights camera, action

Neil Mohr takes a look at the latest incarnation of Cinema 4D and wonders if it can stand up to the onslaught of LightWave 5

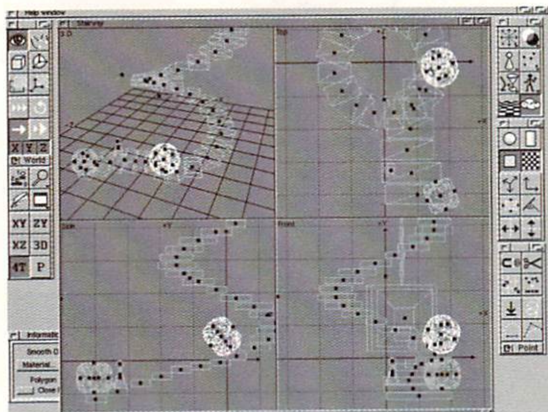
When version two of Cinema4D came out around a year ago, its release was overshadowed somewhat by the release of LightWave 4, and somehow the release of version three has again coincided with the latest release of LightWave. You should however not overlook Cinema4D – at well under half the price of LightWave you get a program that can produce equally stunning results from an easy to use interface.

If you are upgrading or starting afresh with Cinema4D, you use the normal Amiga installer to set everything up, which most people should have no problem with. As with every HiSoft product, Cinema4D comes with excellent packaging, including a 400 plus page manual and a manual addendum that list all the latest changes in version three.

The manual is very helpful, it starts off with a number of introductory tutorials that explains, in basic terms, each part of Cinema's modelling, layout and animation tools and will get beginners off on a good footing. The rest of the manual explains each menu, window and requester in Cinema step by step. A few more advanced examples in the manual would have been helpful but the provided set scenes do help show off Cinema4D's more advanced features.

One striking thing about this product is the lovely Intuition interface, so the modeller, tool bars and the requester can be opened and moved around to where ever you like, and you can even save the positions and size the windows for either the default settings or individual projects. This means you can run Cinema of a CyberGraphX screen along with EGS, Retina or Picasso screens. There is also an option to make direct use of specific card redrawing routines that greatly speed up window redrawing.

All the traditional viewing modes are available with Cinema along with independent 3D and camera views. You quickly become accustomed to Cinema's way of moving around with hot keys letting you switch between move, rotate and zoom movements. As well as selecting view,



At least with Cinema4D you can choose any screen type you like, the bigger the better

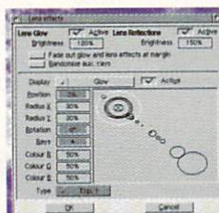
LET THERE BE MORE LIGHT

Cinema now gives you even more control over how light sources illuminate scenes and camera lens effects can be applied to the final image. You know, the sort of lens flare that you get in almost every LightWave render you have ever seen.

In Cinema the light source can be made to produce a good looking star burst effect along with the ancillary lens glow effects that produce the coloured circular rings that run along a line through the original light source.

As with all the other requester windows in the program, you are provided with a great deal of control over how the end lens flare will look. All parts of the star burst and lens glow can be adjusted, with up to 15 lens glow rings being available for each lens flare effect with which you can change the size, colour and brightness. If you want to add a lens flare to a scene just for the hell of it, a no light radiation switch will make the added light source not affect the scene.

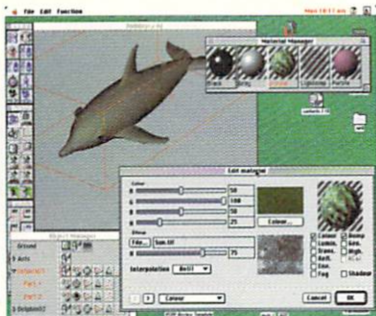
An extra effect not possible with Cinema is to make the light source visible in the scene. This mimics the effect that light has when passing through mist or smoke. As the particles reflect light off to the sides this makes the path of the light through the fog visible. In Cinema you specify how quickly the light will diminish from the origin of the light source.





Now you can try and improve your boring old renders by dropping in a lens flare or two

MATERNAL MATERIALS



Cinema4D on the PowerMac, maybe if a Power Amiga ever stumbles out onto the market we will see something as fast

One of the most important steps in creating realistic models and scenes is in what you make the objects out of. Think about it, if you look around yourself what makes all the things you look at the way they do? The answer is what they are made of, this effects how light is absorbed and reflected off them and gives them both the texture and colour you see.

For example, wood has a rough surface, scatters light rays more and so looks duller and has no highlights compared to something made of polished plastic or metal, that will also directly reflect a light source.

To help you create realistic models, Cinema4D has a very comprehensive material manager that, from one window, allows you to adjust every variable affecting how an object will look in the final picture, allowing you to alter the surface colour, texture, transparency, reflection, highlights, luminance and relief.

Using material is split into three sections: A material selector, creator and manager. The most useful is the manager where you can access all the materials in a scene and using the list of radio buttons select what attribute you want to change and change it. It is here that any bump maps or bitmap textures are also added, even though textures are controlled via a separate texture tool box. Cinema4D can now handle IFF, BMP, Tiff and Jpeg images in full 24 bit colour so textures saved in any of these format are fine, this was probably added as Cinema4D is now out for the PC and Mac.

Talking of which the Mac version has real time texture previews in the material selection and manager windows, maybe in version four?

object, origin and point edit modes that all basically work in the same way.

Objects can be handled in a hierarchical manner, so if you create a car object under this heading you can sub objects such as chassis, wheels, window and these themselves can again be sub-divided. This makes for a simple way of quickly selecting objects from the object selector.

To view scenes you have plenty of render options from the quickest wireframe modes, to full on ray tracing modes. If you create a preview animation using the mono wireframe mode, Cinema can replay the animation in a window on the Cinema screen that can save time.

The package now handles all rendered pictures in full 24 bit, no matter what the actual output screen being used. Along with the new supported input/output file formats means you get much better looking end results.

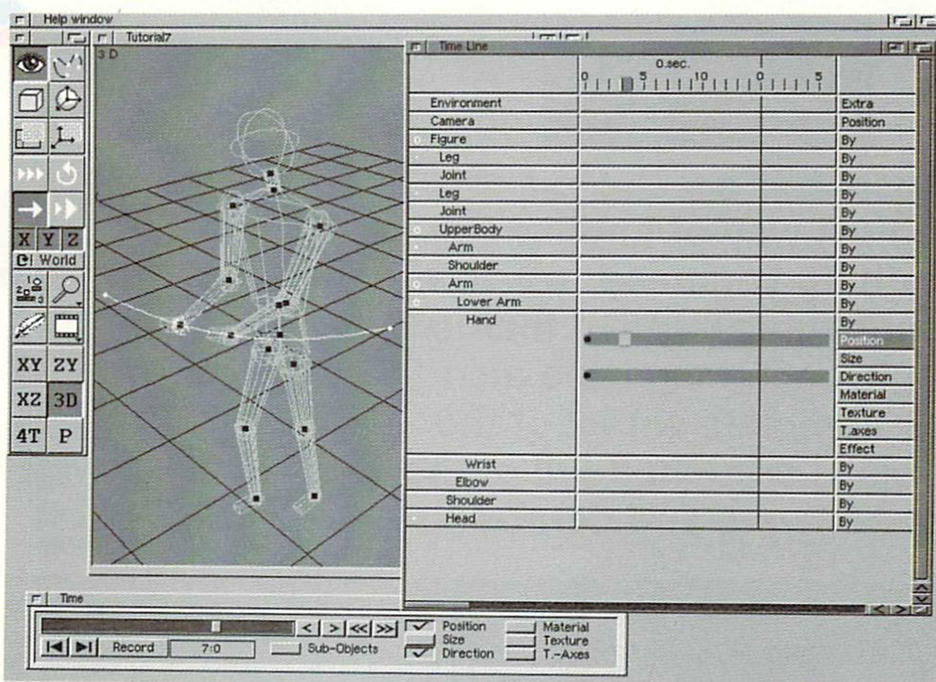
Inverse Kinematics have received a number of good enhancements. Firstly, joints can have restrictions applied to them, allowing you to stop elbows being bent into painful looking angles. The other set of new effects relate to how chains of connected objects react when dragged around by the mouse. Allowing either only a few or all the connected objects being moved.

One of the new points about the raytracer is that it is launched asynchronously from the main Cinema modeller. This allows you to carry on editing a scene while the raytracer invisibly computes away. The problem with this is that the ray tracer is launched at the same priority as the modeller that makes it jerky to use, starting the raytracer at a lower priority would have been a much better idea.

While I am on the subject of asynchronous things, it would be nice if some of the extra requester could be left open such as the object and material selectors, but as hot keys are attached to them this is no real problem.

An important change for this version is that Cinema4D is now 100 percent 060 friendly, earlier versions had a few 060 unfriendly instruction that slowed rendering but these have now all been eliminated and the program purrs along under an 060.

Cinema4D is a comprehensive package offering almost everything you need in a ray tracing package. It's efficiently designed interface makes it easy to learn and simple to use and is one of the few ray tracing programs to offer a true Intuition interface and has full CyberGraphX and RTG support. Imagine and LightWave might be more widely known but the considerably lower price of Cinema makes it a good alternative.



Animation in Cinema is based on control points that you can add in either the modeller or via the time control window, affecting position, size, shape, material, texture or special effect

Bottom line

REQUIREMENTS

RED *essential* — **BLACK** *recommended*

9Mb Hard drive · 16 Mb RAM · 4 Mb RAM · 040 · 020 · RTG card

PRODUCT DETAILS

Product	Cinema4D v3
Supplier	Hi-Soft
Price	£199.95
Tel	0500 223 660
E-mail	sales@hisoft.co.uk
WWW:	http://www.hisoft.co.uk/

SCORES

Ease of use	90%
Implementation	85%
Value For Money	96%
Overall	91%

Go on

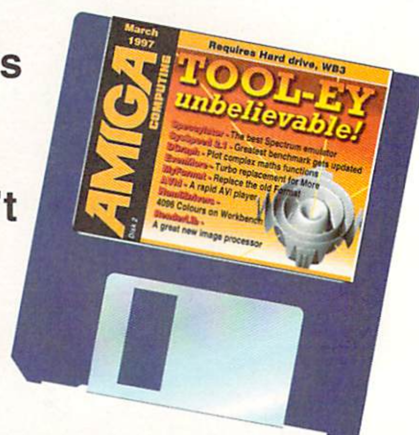
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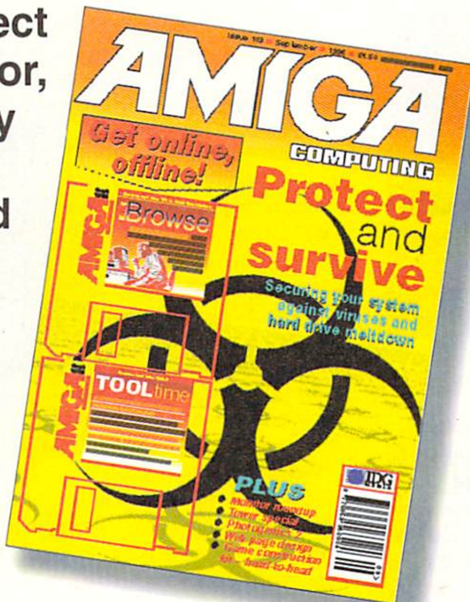


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public sector

Dave Cusick performs his penniless pauper party piece and peruses plenty of PD. Again

The Amiga's corporate future might be as uncertain as ever, but as long as there is a Public Domain and Shareware scene, rest assured that the beige beauty will never die. There's no Perfect PeeDee Past this month because there was simply too much other stuff to cram in...

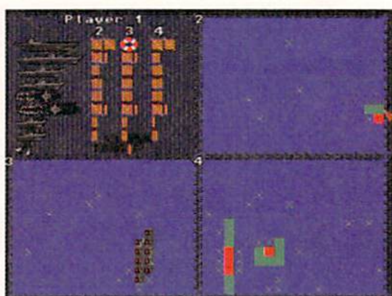
Battleships 2

Programmed by: Patrik Jansson
Available from: Classic Amiga Software
Disk Nos: G448 A, B & C

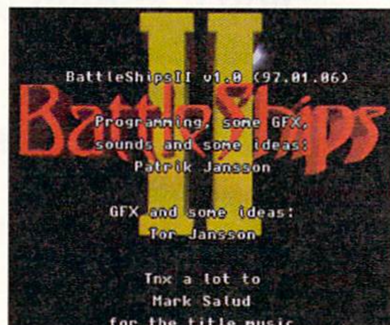
When I was a child, I was reasonably fond of Battleships. This was not, I hasten to add, because I found this charming amalgam of skill and luck any more entertaining in itself than the next kiddy; rather, I feel, because I associated Battleships with long car journeys, and in my experience long car journeys invariably led to camping holidays in Wales.

Without the once-alluring prospect of fourteen days under a tarpaulin on a remote Welsh peninsula lacking all but the most basic of toilet facilities to follow, spending thirty minutes marking crosses on an eight-by-eight grid and gleefully yelling "Splosh!" at my sister's unsuccessful guesses would surely not have proved so... bearable.

Still, if you hanker after the thrills of naval warfare but - alas - have no friends on hand to engage, you will be pleased to learn that Battleships 2 has come cruising over the horizon and is eagerly awaiting permission to anchor itself in the calm waters of your 3.5" harbour.



...and you can compete with chums too



Battleships2: all the fun of a tactical naval engagement

Actually, because Battleships 2 manages to fill three whole floppy disks in its archived form, a hard drive is necessary to play the game. Other requirements include an AGA machine and 4MB of ram, so you would be forgiven for thinking that some impressive graphics and sound lay ahead. You would, however, be horribly wrong.

The main differences between computerised Battleships and the pencil-and-paper original seem to be that here the playing field is larger, shots are fired in salvos (with the number of shots available depending on the vessels still at your disposal), and various actions are accompanied by brief black and white movie clips. These film snips are a nice touch, although the spelling of some of the accompanying text leaves a little bit to be desired.

Battleships 2 scarcely breaks new ground in home computer entertainment, but to be fair it is an accomplished version of the old favourite, and it is perfectly capable of holding the attention for a considerable time.

Play Ball

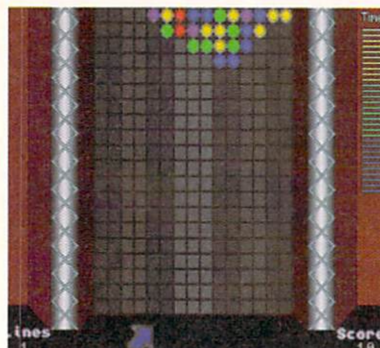
Programmed by: Gerald Brook
Available from: Classic Amiga Software
Disk No: G447

A curious combination of Breakout and Three-in-a-row, Play Ball involves bouncing coloured balls off a wall and up a table, with the objective of getting three balls of the same colour in a line. If you do succeed in making a row of three balls sharing any one of the five different colours, you will earn one of several bonuses which should help ease your progress somewhat.

Mmm, options

Everything takes place against a strict time limit, which can be specified beforehand from the options screen. Once that time has elapsed your score will be calculated. The ultimate objective is simply to score as many points as possible so as to scale the loftiest heights of the high-score table.

With decent enough graphics and sound (and music which can, thankfully, be turned off), Play Ball almost manages to be a curiously engrossing puzzler. In the long term it does lack a certain addictive quality, so whether the interest will endure is debatable, but nevertheless fans of cerebral pastimes would do well to investigate this offering.



Playball: Almost playable

Kid's Stuff

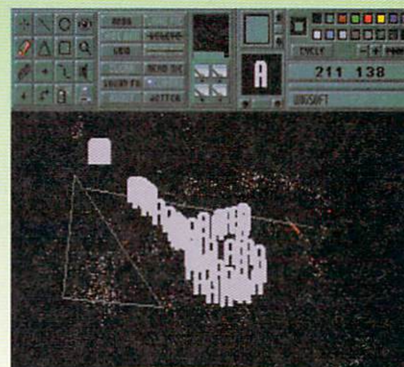
Produced by: Les Wigmore
Available from: Classic Amiga Software
Disk No: ED27

When I was at primary school, art consisted of either drawing matchstick people in our news books (living their lives under a shining yellow sun and a line of blue sky at the top of the picture) or crawling around on sugar paper wearing garish aprons and holding paint-soaked sponges. These days, kiddies get all sorts of fancy computer programs to play around with. Where's the justice there?

Kid's Stuff is a fairly accomplished art package aimed squarely at younger Amiga users. Although it is not really suitable for children under perhaps six years (at least), it offers plenty of sloppy painting tools which should appeal to the kids in question. In addition to the standard tools it is also possible to use clip art, play tunes and mess around with sound samples, meaning that even kids with short attention spans should find plenty to be going on with.

The only reservation I would have in wholeheartedly recommending Kid's Stuff is that I feel the interface is perhaps not quite intuitive enough for young minds - supervision, arguably necessary anyway, would in this case be essential.

This version of Kid's Stuff has the Save and Print options disabled. The full Shareware version costs £4.99 and is available from the author.



PC Task v4 Demo

Programmed by: Chris Harries
Available from: Classic Amiga Software
Disk No: EM7

It is a sad fact, but one that is becoming increasingly obvious even to ardent Amiga fans: The computer world is now dominated by PC Contemptibles, with multi-million dollar companies like Microsoft, IBM and Netscape ploughing huge sums of money into convincing the world that machines like the Amiga have had their day, and that compatibility is more important than diversity.

To a certain extent they are right - in the information age, compatibility is extremely significant. The classic argument that "I'm buying a PC because we use them at the office and I need to be able to take my work home" is well-grounded, if a little extreme. For owners of high-powered Amiga systems who do not want to have to grapple with the untold pleasures of IRQ conflicts, trouble-some sound and graphics cards and BIOS configuration problems then emulation is a more attractive option than mortgaging the house to buy a PC.

Although in this demo version of PC Task, the save is disabled (and thus it is impossible to run programs which use disk caching, such as Windows 3.1), enough features are fully functional for you to get a good feel for the sort of emulation speed your machine is capable of using this powerful software emulator.

With PC Task you can effectively turn your Amiga into an 80486. The 486 might not be at the cutting edge of PC technology, and games emulation is not really practical - Doom would probably not be too impressive even on an 060 Amiga, and you can forget about Quake, because that requires a Pentium machine anyway. But PC Task is certainly more than capable of running most industry standard applications, such as Microsoft Word. PC Task allows emulation in up to 256 colours on AGA machines (although because AGA screenmodes are less than spritely the emulation speed will suffer) and supports all the usual graphics cards.

The demo release includes two versions of PC Task. One uses a Dynamic compilation method, resulting in a faster emulation speed but requiring plenty of memory, whereas the other is Interpretive, meaning less ram is used but your 486 will not run as fast. The demo should at least help you decide whether or not it is worth your while splashing out £69.99 on the full Monty.

```
PC-Task V4.00, Copyright 1992-97 Chris Hames.  All rights reserved.

This is the demonstration version which has writing and other
features disabled.  You should be able to purchase the full version
of PC-Task from your local Amiga dealer, if not contact the Publisher:-
Quasar Distribution,  P.O. Box 101, Vermont, VIC 3133, Australia.
Tel +61 3 9887 2411  Fax +61 3 9887 2511
Internet: pctask@ozemail.com.au    http://www.ozemail.com.au/~pctask/

To quit press the RightAmiga-Del.

Processor: 80486     Conventional Memory: 640K     Extended Memory:     0K
Technical:  (location $08233000  allocated 1024K)
 Drive A is: DF0
 Drive B is: Unavailable
 HardDrive C is: Unavailable
 HardDrive D is: Unavailable

You should insert a bootable(system) 720K (or 1.44M if you have a high
density drive) MSDOS disk now.  It is not supplied with PC-Task.
If you have an IBM PC you can usually create such a disk by inserting a
3.5 inch DSDD disk into the real IBM and at a MSDOS prompt type:-
'format a: /s /f:720' 'format a: /s /n:9' or similar command.
** Error Booting A.  Press a key to try again. **
```

My, what an attractive user interface you have

Garter

Programmed by: Mystic
Available from: Classic Amiga Software
Disk No: DE206 A & B

The vast majority of PD music disks seem to consist of cheesy, derivative dance-type noise, devoid of any semblance of originality or character. It is therefore a pleasant surprise to see a collection of modules which are at least a little unusual.

Garter relies on the strength of its 14 modules rather than any flashy effects. Apart from a Batman picture and some rippling credits to accompany the obligatory ambient synth sounds during loading, the graphics in Garter are limited to a simple single-screen menu.



...but after that it's impressive music all the way



Garter opens with a pointless picture of the caped crusader...

This includes a silky-smooth scroll-text and three sets of tunes to choose from, divided up according to their length.

Encompassing everything from bleepy computery music (with the two alarmingly named Synthetic Dick modules, which in a generous mood I decided were probably tongue-in-cheek efforts) to a tango, and featuring beautifully sampled instruments ranging from steel drums and xylophones to springy sounds, Garter certainly covers a wide variety of styles.

As with all music disks, Garter's fate will inevitably be to be consigned to the diskbox after, at most, a handful of plays. However, testament indeed to its mould-bending (if not mould-breaking) nature is that you might first want to copy a couple of these tunes on to your hard drive.

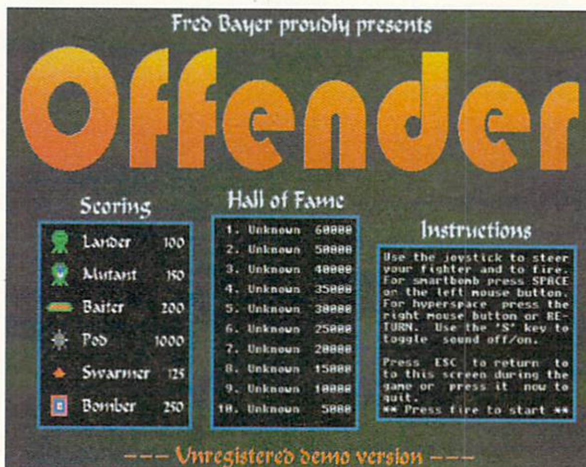
How Do You Do It?

Although for the most part only the very best in Freeware and Shareware makes it into these pages, doubtless there has been the odd occasion when you have flicked through Public Sector muttering to yourself "I could do better than these poor PeeDee efforts", or something. So here's your chance to prove it.

Here's the Bobby Moore: Cram your best efforts onto a 3.5", slap it in a padded envelope with a covering letter and wang it with all haste in our general direction, pausing only to mark the envelope with the words "Reader Submission" in addition to the usual Public Sector address. Some days later when said envelope tumbles gently through my letterbox, I'll tear the package open, shove it in my drive and don my evaluating cap, with the creme de la submissions earning reviews in these pages, as well as highly desirable prizes for their creators. So don't delay - get those submissions in the post before Tina changes her mind about the prizes...

OFFENDER

Programmed by: Fred Bayer
Available from: Classic Amiga Software
Disk No: G443

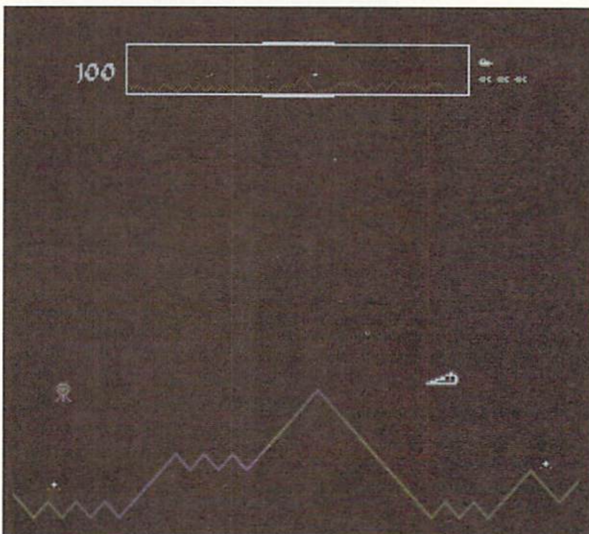


Offender: tip top arcade action

Perhaps disappointingly, Offender is neither a Doom clone featuring generous helpings of sampled expletives nor a Theme Park-esque simulation of life in a penal establishment. In actual fact it is, fairly predictably, a Defender clone.

Avid Public Sector readers who were bored enough to feel the need to digest my fatuous wafflings in issue 109 may recall my sharing with them my joyful experiences with an old 8-bit Defender clone by the name of Gauntlet. Offender comes as close to recapturing that magic as any Amiga game I have seen.

To run Offender you will need a reasonably powerful Amiga: a 68020 is a minimum, as is an FPU. Your starfighter is controlled using a combination of the joystick and keyboard. The traditional approach (a thrust key and a separate reverse key to change direction) has been discarded in favour of more intuitive joystick control, but the hyperspace and smart bomb functions will require you to lunge desperately towards the Return key and the Space Bar respectively.



Whilst my Defending prowess has deteriorated considerably with time, I managed to complete the first two levels of this demo in about two minutes without losing a life, only to find that to play any further it is necessary to register. Indeed this disk really only offers a taster of what the full version has to offer, rather than being a genuine must-have game in itself, but once you have played Offender the chances are you will want to purchase the full Shareware version as soon as possible. Registration costs $15 and as well as plenty of extra levels, the full version boasts better sound effects to accompany the addictive arcade action.

It's like the eighties all over... only less annoying

I LIKE IT?

I want to hear from you if you have any program, whatever its purpose, which you consider worthy of review. Whether it will be freely distributable Public Domain, Shareware or Licenceware, if you feel it is of sufficient quality to merit coverage, stick it in a padded envelope and send it in with all haste. Although Public Sector cannot possibly hope to cover all submissions, I promise I'll at least look at your work - even if it is yet another Lottery program or Klondike cardset. It does make my job a lot easier though if disks are clearly labelled. Please also include a cover letter detailing the disk contents and price, and giving some basic instructions. The magic address is:

Dave Cusick
PD submissions
Amiga Computing
Media House
Adlington Park
Macclesfield SK10 4NP

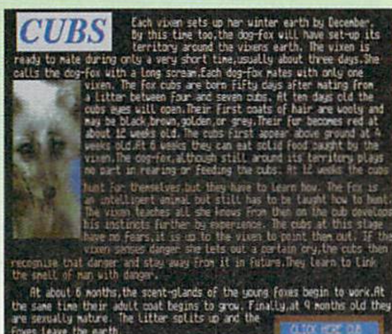
YOU'LL NEVER WALK ALONE

Classic Amiga Software
11, Deansgate
Radcliffe
Manchester
M26 9YJ
(Tel: 0161 723 1638)

FOXES

Programmed by: Derek Brockhouse
Available from: Classic Amiga Software
Disk No: ED117

Whilst happily tootling homewards from the football the other night, crooning contentedly along with Gary Puckett And The Union Gap (having disposed of my inebriated chums appropriately), I was suddenly forced to lunge brakewards so as to avoid redecorating the exterior of my trusty voiture.



...through several attractive screenfuls of text and graphics

Presumably thanking its lucky stars that the driver in question was stone cold sober and riding a Cantona-inspired wave of adrenaline (and thus had sufficient wits about his person so as to halt his steel chariot prior to impact), the fox (for that, dear reader, is what the beast in question was) hastened hedgewards, without so much as a second glance at the unshaken hero of the hour.

All this would be unsurprising had I been steaming along a quiet lane in the depths of rural England, but in fact I was in the middle of a housing estate at the time. Foxes, it would seem, are everywhere these days.

To most of the public, the fox appears to be a cute and cuddly furball. Farmers know differently; foxes can be real nuisances, prowling around in the darkness and sometimes killing farm animals.

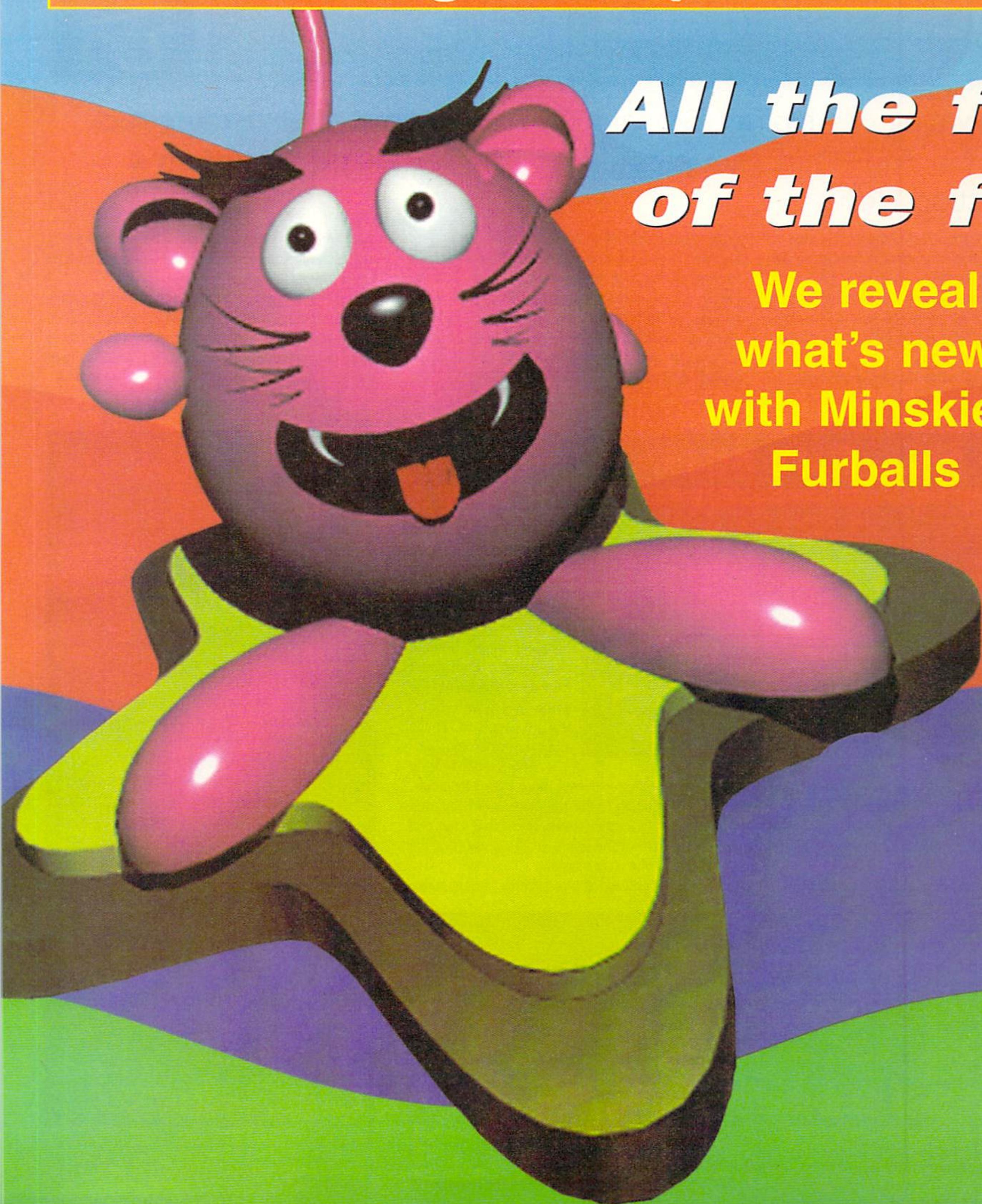


Foxes: learn all about these interesting creatures...

This well-compiled disk aims to answer some common questions about these fascinating creatures, which it does using a combination of text and images that are all accessible from a main menu screen. Although it is unfortunately all too brief, running to only a few screenfuls of information, Foxes makes informative and absorbing reading.

AMIGA ACTION

Cough and Drop Test



All the fun of the fur

We reveal what's new with Minskies Furballs

AMIGA ACTION news

"It's not writing, it's typing". So said Truman Capote after reading Jack Kerouac On The Road. Same could be said for **Hugh Poynton's** Amiga Action News

The analogy isn't brilliant but the Amiga is like one of those horrible old crones in horror movies, Annie Wilkes in Misery for example. Just when you think James Caan's done the old hag in, she dusts herself off and comes back for more. Likewise, whenever you think the Amiga's breathing its last, the bloody thing finds a new lease of life.

The start of 1997 sees the Amiga games market in pretty good health. At the moment three big players are wrestling for control. Epic is launching an assault on the market with the release of more than 30 games, both old and new. Guildhall has rights for a number of older Amiga games as well as a fair few class new ones and Vulcan is trying to keep its claws on the 70 per cent of the market that it owns already. Add to this the fact that, at present, there are many Amiga coders out there who are producing impressive looking games off their own back and the future begins to look pretty rosy.

The best thing is, this influx of new Amiga games isn't just going to be sold via mail order, software and music stores across the country are likely to have Amiga products once again gracing their shelves. You've got no excuse now – go shopping.

PHOENIX



Mid summer 1997 could see the release of an impressive new space combat and trading game called Phoenix which will be similar in concept to Origin's Privateer series. German developer, Emmanuel Hanns, is producing the game which will boast texture mapped space ships and video footage.

The game will be divided into two parts; a trading and an action section. The trading section will offer more than 15 planets, each with various geographical locations which you can travel to. In addition to this the player will encounter over 30 different characters who blink and move their mouths realistically as they speak. These characters will provide you with information, missions or items throughout the course of the game. In this section of the game, interaction with the characters will be done via a user friendly point'n'click system.

The action part offers dogfights in space with various 3D texture mapped spaceships such as carriers, transporters, pirates, military police and space stations. Emmanuel Henn plans to include special FX such as lens flares, explosions and debris.



Phoenix will need at least an A1200/4000 with 68030, 4 MB FastRAM and a hard disk and a CD version is also being considered.

VIRILE VULCAN

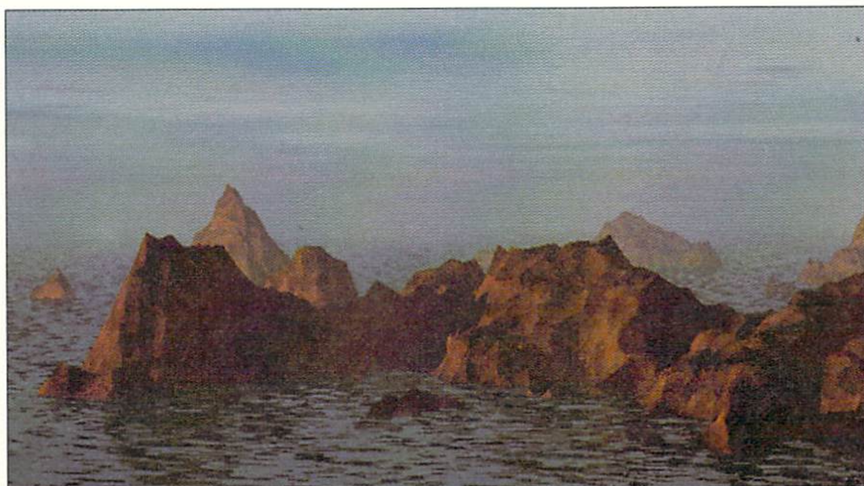
Vulcan Software continues to sign up new Amiga coding talent like there's no tomorrow. Austex, the creator of Uropa 2, has signed with Vulcan to refine and produce its space action/adventure game, as have Ambrosia, the creators of Genetic Species and Ablaze, the Slovakian team behind The Strangers.

New games include Five Aside Football, Pinball Brain Damage AGA, Wasted Dreams, Cold Blood, Enforcer, Ultra Violent Worlds and Alien Olympics. Also available in the next few months will be expansion disks for Vulcan's JETPilot and Burnout.

The Vulcan Web site includes a very rough demo of Enforcer, a doom clone currently under development. As you can see from the screen shot, even in its early stages Enforcer looks quite impressive.



Uropa2, one of Vulcan's future releases



Blackblade's forthcoming game should feature graphics of this standard

BlackBlade Beauty

Blackblade, an Italian Amiga software developer, has posted pictures of its ambitious but very impressive looking new development. The game, which promises to be a exotic and high tech sci-fi flight sim, will use a revolutionary graphics engine and storyline management device somewhat similar to X-wing.

The game will be available on CD (hopefully) sometime in Spring 1997. It is not known whether the game has a UK publisher (Epic and Vulcan take note). We've included a few screenshots to give you an idea of the graphical quality of the game. Music for the game will be high quality CDDA soundtrack combining light digital techno and new age music. Have a look at Blake Blades Web site at: http://www2.shiny.it/~yagg/

The Macc Lads

New Macclesfield based games developers Pandemonium is set to release a new shoot 'em-up called Blasted this month, and have announced its follow up project (working title Machine of the Wastelands).

Blasted is a simplistic mouse controlled arcade game which Ben Parker and Mike Burnett are selling for £5 a piece (offering 50 per cent off their following games). The aim of the game is to simply blast brown ducks and leave the green ones intact, whilst avoiding their perilous poos. Although basic, the game provides enough laughs to justify its price.

The lads' second release, a tank based blast 'em-up, promises to be a much higher tech product and should become available some time in February. For more information contact Ben or Mike on 01625 613068



Forgotten Forever

Forgotten Forever looks like becoming the Amiga's answer to Command and Conquer. Taking much of its inspiration from Dune II, Forgotten is a real-time strategy war game currently being developed by a Hungarian software team called Charm Software.

Charm plans on including about six different terrain types, between 50 and 60 missions to accomplish and 20-25 vehicles to control. As well as this there will be 20-25 different buildings. There is plans for four language modes for the game (English, German, French and Hungarian).

More importantly though, a null modem link could make the game multiplayer. Technically the game also boasts some pretty impressive technical features such as its ability to run in any screen mode in any size that supports double buffering, sprites, and 256 colours (PAL, NTSC, DBLPAL, DBLNTSC etc.). It does not disable multitasking and is HD installable (actually there will be no disk version, but possibly a CD version). It will have a maximum terrain size far larger than Dune II (4096*4096 pixel maximum terrain size as compared to Dune's 1024*1024).



Epic release

Exciting news for Amiga owners this month – it is revealed that Epic plans to release 30 Amiga titles, some new, but many translated versions of German games that have never been seen before in this country. All will be available on floppy and CD and will work on an Amiga 1200.

Cine Tech's Sixth Sense Investigation will be part of the label, as will Kargon, a 3D, four player adventure game, a puzzler called Morbulus and an ultra violent Doom clone called Testament. New games include a multi player racing game called Flyin' High. Epic plans to release around two or three games each month.

Flyin' High, an arcade style racing game, will be the flagship of the new range of titles. As you can see from the screenshots, Flyin' High is a 3D texture mapped arcade racing game with very impressive graphics. It is said the game will have a challenging course with hills, tunnels, ski-jumps and lots more to discover. There are different courses such as the city, forest or in the snow.

In addition to this, Epic plans to find a back door into many big name high street stores by releasing 60 old Amiga classics with an Amiga Emulator for the PC. As many shops won't touch Amiga products, this ensures top name stores will stock the packages.



Flyin' High will lead Epic's push into the Amiga market



Marbleous



Testament

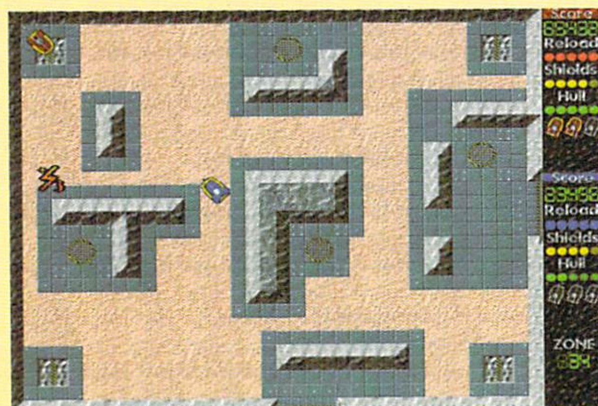
Aurora Tech Specs

Aurora Works, the Canadian Amiga software developer, has announced the release date for its first game, Zone 99, will be some time in late Spring.

Zone 99 promises to be a revolutionary new game boasting features such as 16 channel audio and an 800X600 play screen. The game will be aimed at higher end machines (although versions will be available for AGA machines) and will be compatible with whatever A-box type machine might appear in the coming months.

Negotiations are underway with British distribution companies and projects such as Betrayed, an action/adventure game and The Obelisk, a Myst like adventure game, are planned for the near future. Aurora tells us that now it has written the software development tools for developing its games, titles will be appearing at a regular pace, with an initial plan to publish two titles per year.

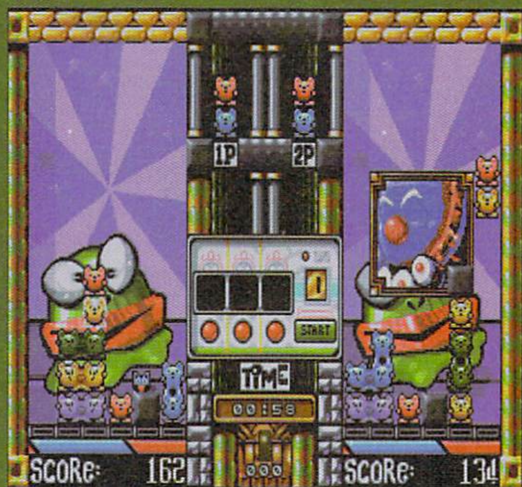
Aurora is currently looking for talented Amiga graphic artists, so if you think you may fit the bill, drop them a line. Aurora Web site is located at: http://www.auroraworks.com:80/Welcome.html



Zone 99 will push the Amiga to its limits

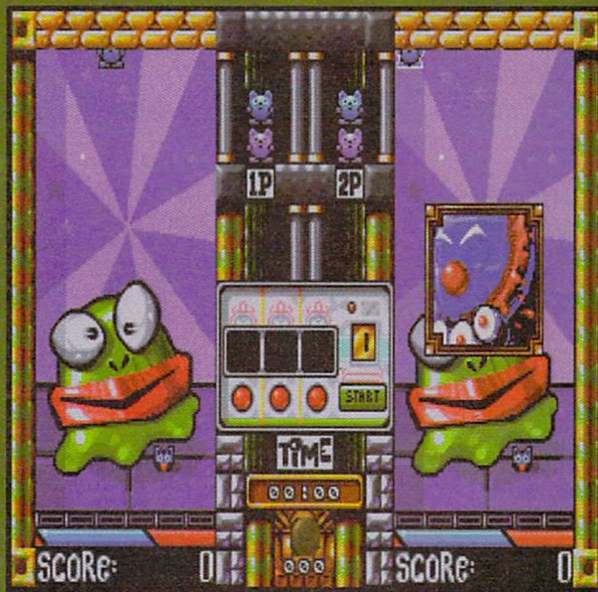
Pussy Galore

Guildhall Software/Binary Emotions has just released its new arcade actioner, Minskies the Abduction. We previewed the game a few months ago and thought it a pretty impressive puzzler.



Minskies, The Abduction - Tetris with cats

Minskies the Abduction heads up Guildhall's range of new Amiga games, along with a puzzler called GunFury, football management sim, Euroleague Manager and Basket Island, an arcade basketball game. In addition to these new games, Guildhall is re-releasing a selection of older Electronic Arts and Microprose products such as Theme Park and Railroad Tycoon. For further details contact Guildhall at 01302 980000



Impressive arcade action

Up to date Tracksuit

Applause Software, creator of Tracksuit Manager 2, has announced it will be releasing an update disk for the 1997 season sometime in February. The disks will include all the moves, changes and player statistics that have changed since last year's footie season in both cup and league competitions.

Vulcan tech specs

Vulcan Software has also released technical specifications for two of its upcoming projects: Ultra Violent Worlds AGA and Uropa2.

Ultra Violent Worlds sounds a pretty impressive game. It will be compatible with AGA Amigas with 4 MB, Hard Drive Installable and will feature 3 levels of Parallex Scrolling in 256 colours at 25 frames per second, five different ship designs, four different worlds, seven different weapons power ups, high definition sound effects and support for two players.

Uropa2 will be compatible with all Amigas with a minimum requirement of 68000 CPU, 1.5 MB Ram and will be playable only from the hard drive. Uropa2 will support Mouse Keyboard and Joystick.

For further details contact Vulcan on 01705 670269 or take a look at the Vulcan Web page at http://www.vulcan.co.uk:80/

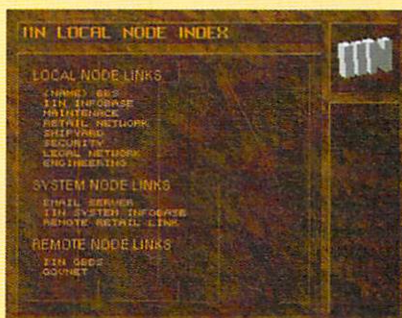
GTI Chart Toppers

GTI, the mail order Amiga software specialists, has just released its retail figures for January 1997. Vulcan, Clickboom and The Bitmap Brothers are all fairing well. Topping the chart is the excellent beat 'em-up, Capital Punishment, followed by Sensible World of Soccer, Hattrick and Chaos Engine 2. Vulcan's new flight simulator, Jetpilot, is also proving popular, as is Killing Grounds and Team 17's Worms.

Explorer piccies

Chris Page, developer of the new Digital Anarchy Software/Vulcan space simulator/strategy game Explorer 2260, has posted the first major screenshots of Explorer on his Web page. Not bad are they? You can read an interview with Chris in the 109 and 110 issues of Amiga Computing.

For further details of the game peruse Chris' page at your leisure, the Internet address is, http://www.cs.man.ac.uk/~pagec5/index.html



Forgotten Forever, Amiga's answer to C&C?



The Macc Lads

Hugh Poynton continues his round up of new games developers for the Amiga. This week Macclesfield based Pandemonium Software.

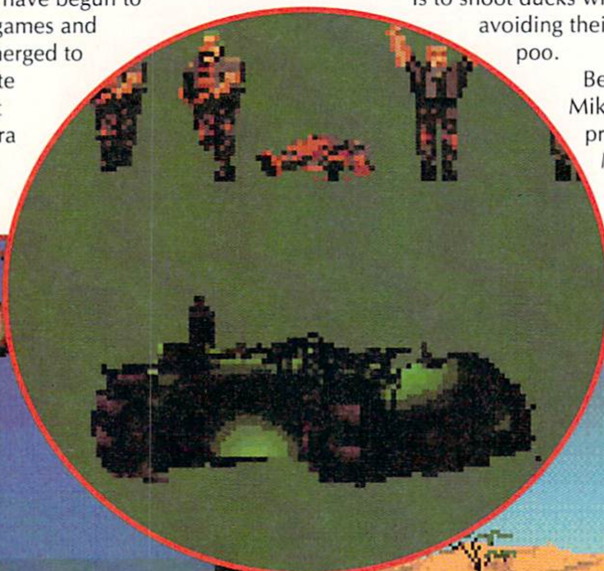
One of the beauties of the Amiga is that it is essentially a hobbyists machine. Unlike the PC and Mac, the Amiga seems to attract people not averse to trying their hand at a bit of coding.

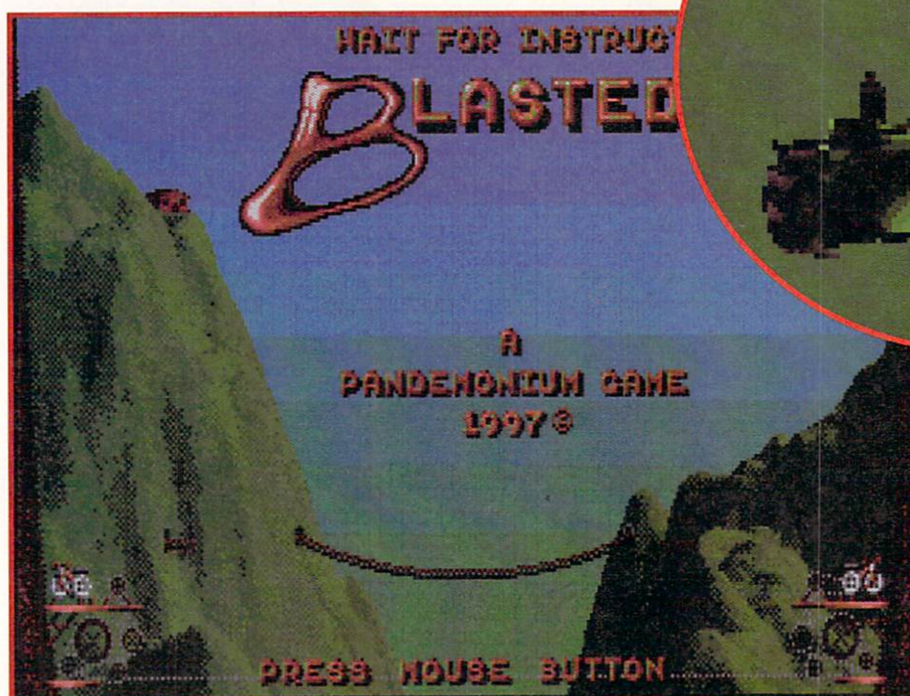
For this reason the massive withdrawal of support for the platform from major software companies has not dealt the deathblow for Amiga based games development that was initially feared. Instead, enthusiasts have begun to develop their own games and companies have emerged to market and distribute them. Development teams such as Aurora have sprung up to develop for high end machines in the hope that people will still be using some variant of Commodore's machine into the 21st Century.

'Bedroom developers' across the world are finding that they are entering a rich market. The Australian developer Austex Software has been signed up by Vulcan, as have the Slovakian team Ablaze. Closer to home, Digital Anarchy's Explorer 2260 has found a distributor.

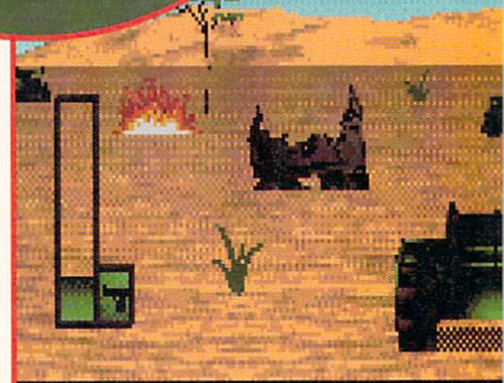
Pandemonium is the latest young hopeful. Otherwise known as Ben Parker and Mike Burnett, two apprentices at a nearby factory. Writing on an Amiga 500, 1200 and 3000, Ben and Mike have completed their first game, a quirky duck-hunt game called Blasted, the aim of which is to shoot ducks whilst avoiding their falling poo.

Ben and Mike's latest project, Machines of the

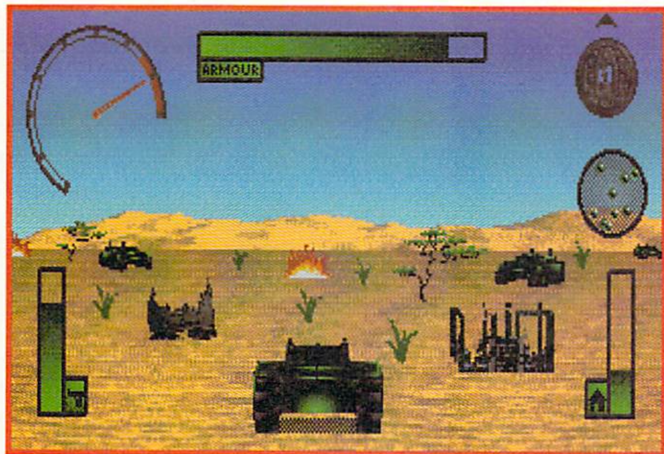




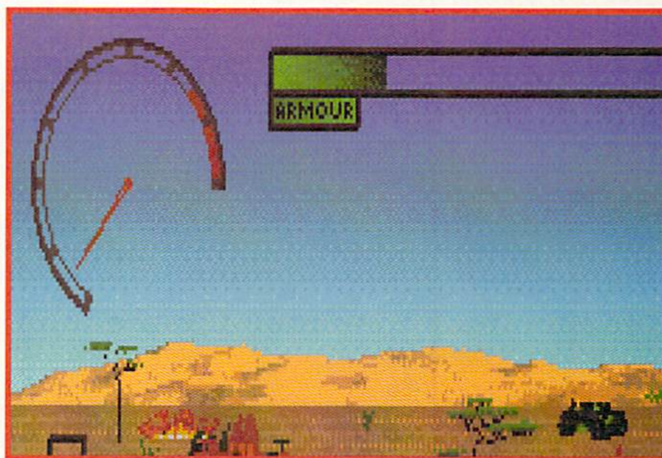
Duckhunt was Pandemonium's first release



The tank is viewed from behind to optimise speed



These early grabs show the game off well



A goblin tank trundles past a burnt out hunk

Wasteland, looks like securing them a bright future in the Amiga gaming world. The ace up their sleeve is a project they have been working on for the last six months – a three dimensional texture mapped tank game called 'Machines of the Wasteland'.

Machines of the Wasteland is set in an alien world where mercenary bands of goblins compete for their planets last resources. Like some weird meld between Mad Max and WarHammer 2000, these goblin clans drive about in tanks blowing the stuffing out of each other and capturing resources, enemy positions and rescuing hostages. Essential to the performance of the tanks is water (it is used as a fuel and a lubricant), so strategic considerations also come into the game.

In order to achieve the maximum possible success in battle, you must crew your tank with the best mercenaries you can find. Each tank has room for three crew; a mechanic, reloader and gunner. These are to be found in the seedy bar. The wage they ask for will be reflected in the level of skill they display. Mechanics are not essential to the running of the tank, but only they can repair a battle damaged tank. If your crew are not paid they will, like all good mercenaries, leave your pay. Weapons upgrades are available and a novel new feature included is the bartering option which will allow you to decide on the crew's pay via a fruit machine-like device – strike it lucky and you will get away with paying them peanuts.

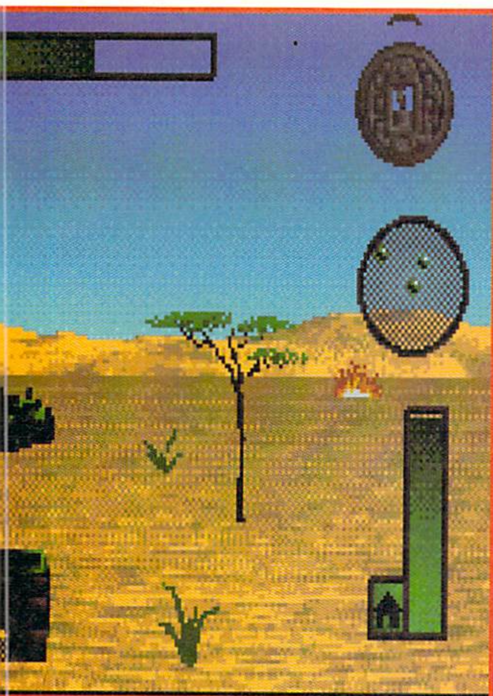
From what I've seen, Machines of the Wastelands looks pretty impressive. It blends features from different games and genres – there's 3-D shoot 'em-up action during the tank battles, the crew recruitment brings a trading element to the game and a degree of strategy is required where what you capture and where is of much importance.

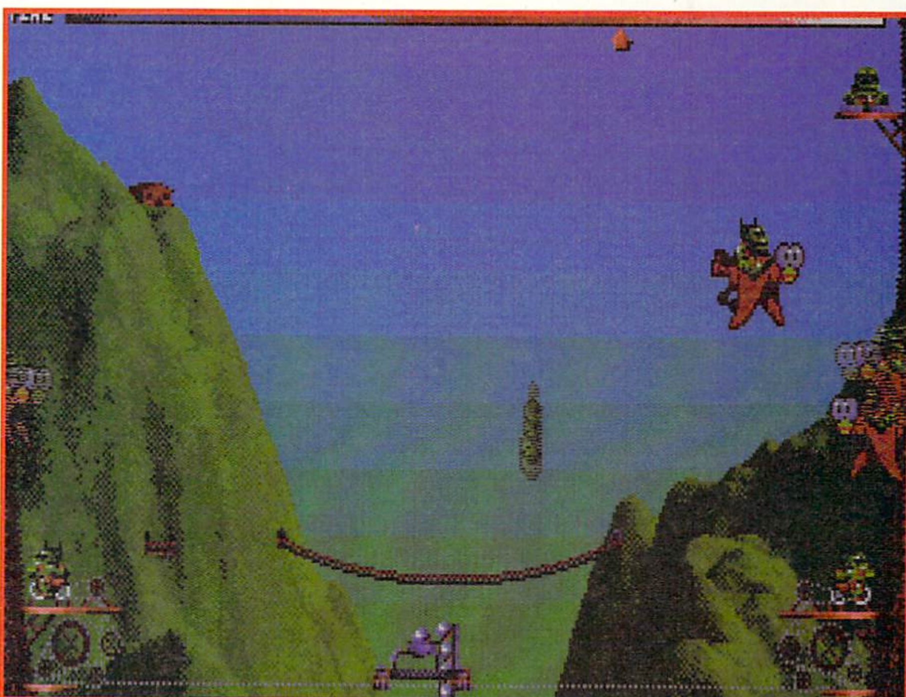
The graphics look good, especially when one takes into consideration the fact that 'Machines' is Pandemonium's first venture into 3-D gaming. The bulk of the game takes place in a barren desert littered with objects such as trees, shrubs, buildings and other tanks. The engine in which the game environment is built is true 3-D and in order to allow lower spec computers to run the game, the display is from third, rather than first, person perspective.

Viewing the tank from behind rather than as if you were sitting in it avoids the chances of that pixel effect appearing on slower machines.

Ben and Mike are investigating the possibility of a two player version of the game for A1200 and above. Machines of the Wastelands is still in its early stages and it has yet to be taken to a publisher. The game looks as if it should do well and Ben and Mike say they have plenty more ideas in the pipeline, so watch this space.

If you want to contact Michael Burnett and Ben Parker, Pandemonium, write to them at:
Mayfield
25 Victoria Road
Macclesfield
Cheshire
SK10 3JA


ower machines


Avoid falling duck deposits

Testament

Tina Hackett is having a bad day. Waht better way than to vent her anger than blasting some alien beings?

I thought Doom clones had had their day on the Amiga. When Doom originally came out Amiga owners were green with envy. Games developers panicked and, not wanting to lose any Amiga gamers over to the PC, took to the drawing board to develop something, quick-smart. Originality went out of the window but it transpired that the games players didn't care and snapped them up by the truckload.

Fear, Breathless and Gloom led the way, Alien Breed 3D also impressed. It was then, however, that every developer seemed to think a fast buck could be made by jumping on the Doom bandwagon. It was also then that all the problems started and, rather than Doom Clones, we started to see Doom Drones. Terrible graphics, uninspired gameplay and monsters as menacing as Frank Bruno seemed to be the formula for the Drones.



Go on just through the trees to get some bullets

Things then went a bit quieter as the gamers wised up. Now, 3D Shoot 'em up's are back and Amiga owners have three newies to look out for. Two are from Vulcan: Genetic Species and The Enforcer, and the other, called Testament, is being distributed by Epic's label, Islona.

In this preview we're going to take a look at Testament. Developed by a German company called Insanity, it promises the usual entertainment of blasting aliens with guns, picking up ammunition and navigating your way around dark gloomy rooms.

It starts in a rather RPG type fashion – you're outside with lots of eerie trees and what look like castle walls. Walking around, you can arm yourself with a gun and plenty of ammunition. It soon becomes clear that not everything is quite right, a bloodied corpse lying on the ground tends to give it away!

Okay, so Doom type games don't dwell too much on a storyline but this one goes something along the lines of the living dead



The first sign all is not well, a heap of bloodied pixels



Eek monster, go on, you know what to do...



Bet that scared you...



Collect the key to go behind the door to get lovely green vomit all over you

are having a bit of a knees-up in the graveyard along with their flesh-eating type chums. You turn up only to find that these all-night groovers have a new party game - namely that of trying to eat your brains!

Time for a sharp exit, you think - playing the part of the reaper, from here you must make your way through swampy tracks and eerie tombs shooting any of the cannibalistic creatures as you go. So after collecting as much ammunition as you can, you then enter a foreboding building that wouldn't take any harm from having a few chintz scatter cushions and pot plants about the place. It's soon time to try out your new gun as monsters fly out at you from all directions - the ones we've seen so far being a slimy green eyeball - yeuchh, and a brown fanged type thing that seems to hurl green vomit over you.

The game is graphically not bad although the monsters aren't exactly pant-wettingly scary. Also the map in the corner of the screen needs some work.

Accompanying music is quite reasonable in conveying the atmosphere. From what I'd played for this preview, I hadn't managed to change my weapon from a bog-standard gun and



unfortunately, as I can't read German, couldn't tell what the different options are. However, the gameplay works quite well and, apart from shooting baddies and the like, you will also have to find keys to get through doors and watch for other collectibles such as Medikits. There's also skulls and scrolls to pick up which help you along the way.

The version we saw was in German but when it is released in May '97, all text will be in English with a Commodore installer script. Reviews in German magazines have been favourable so far earning it 74 per cent from Amiga Magazin and a quote from Amiga Plus saying "It plays well, the difficulty level is perfect..."

It's certainly not going to be a Doom-beater, but as a cross between an RPG (in looks and atmosphere) and a 3-D shoot 'em-up, it looks like it should provide a fair amount of entertainment.

Testament will be released on three disks and cost £24.99. It should run on any 2Mb AGA Amiga and will be hard drive installable. In the meantime if you want to contact Islona, the number is 01793 432176 or e-mail islona@epma.demon.co.uk



Ooh, what around this corner?



Collect weapons as you you

Tiny Troops

Hugh Poynton dons his space helmet and prepares to meet Vulcan's new invaders in mortal combat

Back in December, I wrote a preview of an excellent new game being developed by Vulcan called Tiny Troops. The game looked like being a fun new twist to the traditional, 'lets play at re-enacting the Tet Offensive' genre, known as war games.

The storyline was stupid but fun: After 450 years of continuous fighting, two races of space aliens arrive at two simple but problematic conclusions. The first is that after all this time fighting they find they rather enjoy wanton destruction. The second is that if they continue to bombard their planet with heavy ordinance they'll bugger it up beyond repair. The plan they eventually come up with is to jaunt off to Earth and continue the fighting. Fortunately for the human race, these fierce galactic warriors are only knee high to a grass hopper.

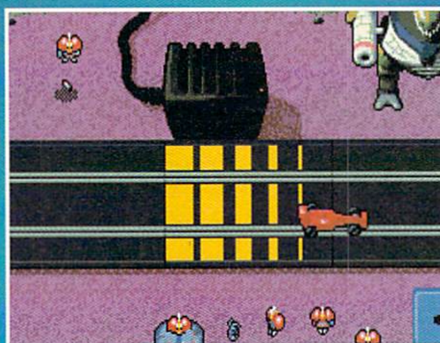
It's your job to direct these pint sized platoons around kitchen work surfaces, window boxes and whatever else will double as a battlefield. Your first decision is to decide whether you'll control the bunny rabbit like Klutes or the Marvin the Martianesque Furfurs.

Once you've done this it's time to decide which tactics need to be employed to bring victory. How many troops will you utilise? There are a total of 12 troops to command but a smaller group of perhaps 5 will be easier to handle and easier to manoeuvre. The full 12, however will have buckets more firepower. Will you split your force into two or three groups and surround them, use one group to attack, and the other to defend your teleport base or just go for the ever useful kamikaze death charge using every killer critter at your disposal?

Although I'm no Tecumseh Sherman, this task is a little more difficult than you might expect going by the cute cartoon feel of the game. The task of defeating the enemy will take a fair amount of brain power and more than a little luck.

Tiny Troops is like a mental amalgam of The Smurfs, Micro Machines, Chorlton and the Wheelies and Platoon. As combinations go, it's a bit of a weird one, but it's a cocktail that makes for a strangely addictive and very enjoyable little game. Tiny Troops is a fun and involving take on a traditionally dull genre and I'd recommend it to anybody.


The first casualty of war is your flower bed


Does the Green Cross Code cover for the eventuality of large dinosaurs on the other side of the road?


Ah well, I guess they keep the greenfly away


Sun, sea sand and the other. Klute and Furfur kick off beach front style

THE LOW-DOWN

PUBLISHER	Vulcan
DEVELOPER	In house
CONTACT	01705 670269
PRICE	£16.99
DISKS	5
SUPPORTS	All 1Mb Amigas

GRAPHICS	82%
SOUND	85%
PLAYABILITY	85%
DIFFICULTY	Tricky

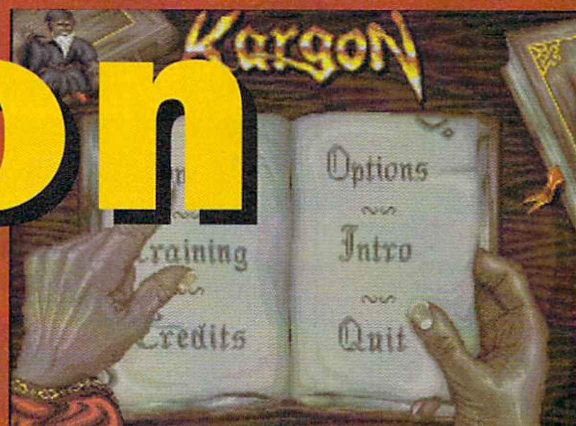
REVIEWED BY HUGH

OVERALL SCORE

84%

Kargon

Have the Stones of Kazool foreseen this new arrival from the one known as Islona? I think not, must be faulty...



Our friend the Wizard checks his filofax to see if he can 'do lunch'

I knew a load of fantasy role players at University. They were a pretty weird lot. They'd spend Friday evenings playing strange card games whereby if somebody threw a dice wrong they'd be banished from the realms of Kraal for three aeons – or in English, the kitchen for an hour.

It never really appealed to me – as far I'm concerned magic and the like has been forever tainted by the unsurpassable crapness of David Copperfield and Paul Daniels (the cleverest bit of magic those to have managed is their respective spouses; Claudia Schiffer isn't bad for such a cheesy bequiffed bloke and, though no oil painting, Debbie McGee is certainly a good catch for such a chrome dome).

To get back to the point, I wasn't thrilled when given a copy of Islona's Kargon to preview. The intro screens were full of those characters you might associate with an RPG – hard looking female warriors with pneumatic chests, tough but stupid looking warriors with mullet haircuts and loads of mental dwarfs and goblins. However things weren't as bad as I first thought.

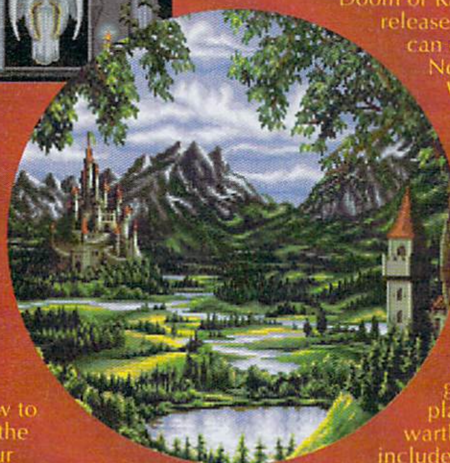
Firstly (and I reckon a few more games could do with this feature) Kargon included a tutorial option. This was invaluable. Lets face it, when you buy a game, do you read the manual and then play the game whilst reading the book slowly and methodically. I think not, you just use trial and error and muck about for 10 minutes until you've got the hang of it. This option lets you muck about whilst learning a lot about the game in a short time.

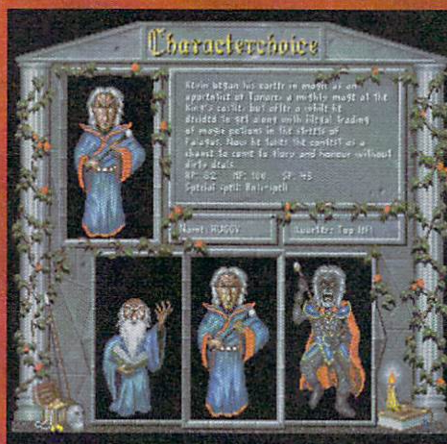


I've chosen the scary Uncle Albert Character in the middle

Once you've learnt how to navigate your way around the maze, casting spells on your hapless opponents and avoiding the terrifying blue tentacle things. The game can be played by up to four players which is something of a boast for an Amiga game – the only other game capable of supporting as many players at the moment that I can think of being Burnout.

Although involving and exciting to play, the game isn't as truly 3-D as you might first think. It seems as though it belongs to a generation of computer games before Doom or Kargon's sister release, Testament. You can only move yourself North, South, East or West and you can only move forward one square at a time. This doesn't detract from the game and other features such as the multiplayer support and even the characters you are given the choice of playing (angel, warthog and pixie included) make the game interesting and fun to play.





What amazing dress sense


The four player mode is great fun


It's your job to save this quaint provincial little land from the powers of evil

Super Leagues

Yes, the most comprehensive Amiga games library is back. The Super leagues work as they have always done – the creme de la creme of each genre can be found in the top 15-20, whilst any new releases in the top half of each league are usually worth a look. Older releases standing the test of time and managing to hold on to positions in the top two thirds of each league are also good buys, if you can get your hands on them. Alternatively, just look on the whole thing as a chance to reminisce. Right then, deep breath...

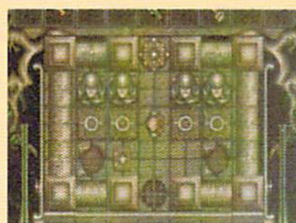
Arcade Adventure

1. **FLASHBACK** – *US Gold*
2. **D/GENERATION** – *Mindscape*
3. **FIRST SAMURAI** – *Mirrorsoft*
4. **ASHES OF EMPIRE** – *Mirage*
5. **HUNTER** – *Activision*
6. **ROBOCOP 3** – *Ocean*
7. **THE IMMORTAL** – *Electronic Arts*
8. **SECOND SAMURAI** – *Psygnosis*
9. **MOONSTONE** – *Mindscape*
10. **CORPORATION** – *Core Design*
11. **CADAVER** – *Renegade*
12. **LORDS OF TIME** – *Hollyware*
13. **EXILE** – *Guildhall Leisure*
14. **JURASSIC PARK** – *Ocean*
15. **LITIL DIVIL** – *Gremlin (CD32 only)*
16. **ANOTHER WORLD** – *US Gold*
17. **SPACE CRUSADE** – *Gremlin*
18. **SHADOW OF THE BEAST** – *Psygnosis*
19. **CYBERCON 111** – *US Gold*
20. **BARBARIAN 11** – *Psygnosis*
21. **SWORD OF HONOUR** – *Global/DMI*
22. **GOLD OF THE AZTECS** – *US Gold*
23. **XENOMORPH** – *Ubisoft*
24. **HERO QUEST** – *Gremlin*
25. **ROCKET RANGER** – *Cinemaware*
26. **IT CAME FROM THE DESERT** – *Cineware*
27. **LAST NINJA 3** – *System 3*
28. **THE SIMPSONS** – *Ocean*
29. **HORROR ZOMBIES FROM THE CRYPT** – *Millenium*
30. **UNREAL** – *Ubisoft*
31. **KULT** – *Ubisoft*
32. **MEAN STREETS** – *US Gold*
33. **HEAD OVER HEELS** – *Ocean*
34. **PRINCE OF PERSIA** – *Domark*
35. **OBITUS** – *Psygnosis*
36. **VOODOO NIGHTMARE** – *Activision*
37. **ZOMBI** – *Ubisoft*
38. **NINJA REMIX** – *System 3*
39. **COLARADO** – *Ubisoft*
40. **BLOODWYTCH** – *Mirrorsoft*
41. **ESCAPE FROM COLDITZ** – *Digital Magic*
42. **CRYSTALS OF ARBOREA** – *Similarils*
43. **HARE RASING HAVOC** – *Infogrames*
44. **DRAGONSTONE** – *Core Design*
45. **MERCENARY III** – *Novagen*
46. **SHADOW OF THE BEAST II** – *Psygnosis*
47. **DIZZY'S EXCELLENT ADVENTURE** – *Codemasters*
48. **DEATH TRAP** – *Anco*
49. **DRAGON'S LAIR III** – *Readysoft*
50. **TREASURE TRAP** – *Codemasters*
51. **SHADOW OF THE BEAST** – *Psygnosis*
52. **INFESTATION** – *Unknown*
53. **RESOLUTION 101** – *Millenium*
54. **NUEROMANCER** – *Ubisoft*
55. **RAN XEROX** – *Ubisoft*
56. **BATMAN: THE CAPED CRUSADER** – *Ocean*
57. **WEIRD DREAMS** – *Rainbow Arts*
58. **SIR FRED** – *Ubisoft*
59. **HEROES OF LANCE** – *US Gold*
60. **SPACE ACE II** – *Readysoft*
61. **STORMLORD** – *Unknown*
62. **THUNDERBIRDS** – *UBI*
63. **GHOSTBUSTERS 2** – *Activision*
64. **BOROBODUR** – *Thalamus*
65. **BRIDES OF DRACULA** – *Gonzo Games*
66. **NIGHTBREED (INTERACTIVE)** – *Ocean*
67. **GUY SPY** – *Readysoft*
68. **THE RETURN OF THE MEDUSA** – *Starbyte*
69. **OMNICORP CONSPIRACY** – *Unknown*
70. **BLADE WARRIOR** – *Unknown*
71. **CHAOS IN ANDROMEDA** – *Arc Software*
72. **BADLANDS PETE** – *Arc Software*
73. **BEASTLORD** – *Grandslam*
74. **UNIVERSAL MONSTERS** – *Ocean*



75. **INDIANA JONES AND THE FATE OF ATLANTIS** – *US Gold*
76. **SPACE ACE** – *Readysoft*
77. **DRAGON'S LAIR 2** – *Readysoft*
78. **CRIME DOES NOT PAY** – *Empire*
79. **SINGE'S LAIR** – *Readysoft*
80. **DRAGON'S LAIR** – *Readysoft*
81. **BARBARIAN** – *Palace*
82. **OBLITERATOR** – *Unknown*
83. **KRISTAL** – *Unknown*
84. **GALDREGON'S DOMAIN** – *Unknown*
85. **THEME PARK MYSTERY** – *Mirrorsoft*
86. **PYRAMAX** – *Unknown*
87. **EVE OF HGORUS** – *Millenium*
88. **PAC LAND** – *Unknown*
89. **THREE STOOGES** – *Cinemaware*
90. **AQAUNAUT** – *Fission Chips*

Arcade Adventure



1. **VALHALLA AND THE FORTRESS OF EVE** – *Vulcan*
2. **VALHALLA / BEFORE THE WAR** – *Vulcan*



3. **MONKEY ISLAND 2** – *US Gold*
4. **BENEATH A STEEL SKY** – *Virgin*
5. **LEGEND OF KYRANDIA** – *Virgin*
6. **INDIAN JONES AND THE FATE OF ATLANTIS** – *US Gold*
7. **LURE OF THE TEMPTRESS** – *Virgin*
8. **SIMON THE SORCERER** – *PDQ*
9. **DREAMWARE** – *Empire*
10. **FLIGHT OF THE AMAZON QUEEN** – *Renegade*
11. **SECRET OF MONKEY ISLAND** – *US Gold*
12. **CURSE OF ENCHANTIA** – *Core Design*
13. **MAD DOG WILLIAMS** – *Game Crafters*
14. **HEART OF CHINA** – *Dynamix*
15. **BLOODNET** – *Gametek*
16. **THE CLUE** – *Black Legend*
17. **LABYRINTH OF TIME** – *Electronic Arts*
18. **INDIANA JONES AND THE LAST CRUSADE** – *US Gold*
19. **LEISURE SUIT LARRY 5** – *Sierra*
20. **OPERATION STEALTH** – *US Gold*
21. **KING'S QUEST VI** – *Sierra*



22. **CRUSE FOR A CORPSE** – *US Gold*
23. **LEISURE SUIT LARRY SERIES** – *Sierra*
24. **KGB** – *Virgin*
25. **COSMIC SPACEHEAD** – *Codemasters*
26. **MANIAC MANSION** – *Eldersoft*
27. **KING'S QUEST SERIES** – *Sierra*
28. **DARK SEED** – *Cyberdreams*
29. **ELVIRA: MISTRESS OF THE DARK** – *Accolade*
30. **ELVIRA II: JAWS OF CEREBUS** – *Accolade*



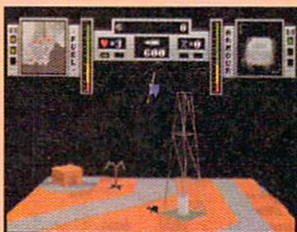
The infusion of fresh talent into Amiga Action continues. Our Caz made her debut last issue and this month Paul Faulkner revises the Super leagues

31. **POLICE QUEST SERIES** – *Sierra*
32. **FLAMES OF FREEDOM** – *Microprose*
33. **STAR TREK** – *Interplay*
34. **RISE OF THE DRAGON** – *Dynamix*
35. **NIPPON SAFES INC** – *DMI*
36. **HITCH HIKER'S GUIDE TO THE GALAXY** – *Infocom*
37. **DUNE** – *Virgin*
38. **LOOM** – *US Gold*
39. **WILLY BEAMISH** – *Dynamix*
40. **CODENAME: ICEMAN** – *Sierra*
41. **UNIVERSE** – *Core Design*
42. **SPACE QUEST IV** – *Sierra*
43. **SPACE QUEST SERIES** – *Sierra*
44. **FUTURE WARS** – *US Gold*
45. **ZAK MCKRAKEN** – *US Gold*
46. **ZORK TRILOGY** – *Infocom*
47. **TRAIL BY FIRE** – *Sierra*
48. **SUSPICIOUS CARGO** – *Gremlin*
49. **WEEN: THE PROPHECY** – *Coktel Vision*
50. **PLAN 9 FROM OUTER SPACE** – *Gremlin*
51. **WONDERLAND** – *Virgin*
52. **DEMONIAK** – *Silmarils*
53. **MAUPITI ISLAND** – *Lankhor*
54. **PLANETFALL** – *Infogrames*
55. **GUILD OF THEIVES** – *Rainbird*
56. **B. A. T. II** – *Ubisoft*
57. **STATIONFALL** – *Infocom*
58. **INNOCENT UNTIL CAUGHT** – *Psygnosis*
59. **CONQUESTS OF CAMELOT** – *Sierra*
60. **LURKING HORROR** – *Unknown*
61. **ULTIMA SERIES** – *Origin*
62. **MANHUNTER SERIES** – *Sierra*
63. **DEJA-VU 1 & 2** – *Mirrorsoft*
64. **B. A.T.** – *Ubisoft*
65. **SHOGUN** – *Infocom*
66. **SPELLBREAKER** – *Infocom*
67. **WISHBRINGER** – *Infocom*
68. **CHRONOQUEST SERIES** – *Psygnosis*
69. **ENCHANTER** – *Infocom*
70. **SORCERER** – *Infocom*
71. **BEYOND ZORK** – *Infocom*
72. **ZORK ZERO** – *Infocom*
73. **SUSPECT** – *Infocom*
74. **BUREAUCRACY** – *Rainbow Arts*
75. **DEADLINE** – *Infocom*
76. **TIME** – *Rainbird*
77. **INFIDEL** – *Infocom*
78. **CORRUPTION** – *Rainbird*
79. **FISH** – *Rainbird*
80. **JINXTER** – *Rainbird*
81. **HOOK** – *Ocean*
82. **THE PAWN** – *Rainbird*
83. **SUSPENDED** – *Infocom*
84. **LEATHER GODDESSES OF PHOBOS** – *Infocom*
85. **TIMES OF LORE** – *Origin*
86. **COLONEL'S BEQUEST** – *Sierra*
87. **GOLDRUSH!** – *Sierra*
88. **FASCINATION** – *Digital Integration*
89. **STARCROSS** – *Ubisoft*
90. **HOLLYWOOD HI-JINX** – *Infocom*

Shoot 'em up



1. **ALIEN BREED 3D** – *Team 17*
2. **FEARS** – *Manyx*
3. **SKELETON KREW** – *Core Design*
4. **CHAOS ENGINE 2** – *Time Warner Interactive*
5. **ALIEN BREED 2: TOWER ASSAULT** – *Team 17*
6. **JUNGLE STRIKE** – *Electronic Arts*
7. **DESERT STRIKE** – *Electronic Arts*
8. **CHAOS ENGINE** – *Renegade*



9. **ZEEWOLF 2: WILD JUSTICE** – *Binary Asylum*
10. **GLOOM** – *Guildhall Leisure*
11. **VIROCOP** – *Warner Interactive*
12. **GUARDIAN** – *Acid Software*
13. **ALIEN BREED 2** – *Team 17*
14. **PROJECT X** – *Team 17*
15. **ALIEN BREED '92** – *Team 17*
16. **BLOOD MONEY** – *Psygnosis*
17. **TURRICAN 3** – *Renegade*
18. **BREATHLESS** – *Power Computing*
19. **SWIV** – *Storm*
20. **SEEK AND DESTROY** – *Mindscape*
21. **BANSHEE** – *Core Design*
22. **WALKER** – *Psygnosis*
23. **SILKWORM** – *The Sales Curve*
24. **ZEEWOLF** – *Binary Asylum*
25. **TURRICAN 2** – *Rainbow Arts*
26. **ALIEN BREED** – *Team 17*
27. **OVERKILL** – *Mindscape*
28. **URIDIUM 2** – *Renegade*
29. **BLASTAR** – *Core Design*
30. **STARDUST / SUPER STARDUST** – *Daze / Team 17*
31. **XENON II: MEGABLAST** – *Renegade*
32. **THE KILLING GAME SHOW** – *Psygnosis*
33. **Z-OUT** – *Rainbow Arts*
34. **R-TYPE II** – *Activision*
35. **X-OUT** – *Rainbow Arts*
36. **SIMULCAR** – *Microstyle*
37. **TURRICAN** – *Rainbow Arts*
38. **ALCATRAZ** – *Infogrames*
39. **APIDYA** – *Blue Byte*
40. **AMINIOS** – *Psygnosis*
41. **DISPOSABLE HEROE** – *Gremlin*
42. **MIDNIGHT RESISTANCE** – *Ocean*
43. **CYBERPUNKS** – *Core Design*
44. **WOLFCHILD** – *Core Design*
45. **MICROCOSM** – *Psygnosis*
46. **EPIC** – *Ocean*
47. **VENUS** – *Gremlin*
48. **R-TYPE** – *Activision*
49. **BATTLE SQAUDRON** – *Ubisoft*
50. **FIREFORCE** – *ICE*
51. **APOCALYPSE** – *Virgin*
52. **SPACE GUN** – *Ocean*
53. **ALIEN BREED 3D 2: THE KILLING GROUNDS** – *Team 17*
54. **JET STRIKE** – *Alternative*
55. **WING COMMANDER** – *Mindscape*
56. **LETHAL XCESS** – *Grandslam*
57. **VITAL LIGHT** – *Millenium*
58. **WINGS OF DEATH** – *Thalion*
59. **FLY HARDER** – *Krisalis*
60. **ORK** – *Psygnosis*
61. **CITADEL** – *Black Legend*
62. **PEGASUS** – *Gremlin*
63. **HOSTILE BREED** – *Palace*
64. **T2 ARCADE** – *Virgin*
65. **ATOMIC ROBO-KID** – *Activision*
66. **BONANZA BROTHERS** – *US Gold*
67. **SUPER SPACE INVADERS** – *Domark*
68. **AGONY** – *Psygnosis*
69. **MEAN ARENAS** – *ICE*
70. **WARZONE** – *Core Design*
71. **STELLA 7** – *Sierra*
72. **MONSTERS** – *Ubisoft*
73. **RUNICON** – *21st Century*
74. **FIREHAWK** – *Codemasters*
75. **STRIKER 2** – *US Gold*
76. **FANTASTIC VOYAGE** – *Centaur Software*
77. **OPERATION WOLF** – *Ocean*
78. **LINE OF FIRE** – *US Gold*
79. **THE EXECUTIONER** – *Audiogenic*
80. **ARMALYTE** – *Thalamus*
81. **SHADOW DANCER** – *US Gold*
82. **BATTLESTORM** – *Ubisoft*
83. **OPERATION THUNDERBOLT** – *Ocean*
84. **XENON** – *Renegade*
85. **SUPER SKWEEL** – *Loriciel*
86. **WATCHTOWER** – *OTM*
87. **STARUSH** – *Ubisoft*
88. **ROBOCOP 2** – *Ocean*
89. **MERCS** – *US Gold*
90. **BAAL** – *Unknown*
91. **ANARCHY** – *Unknown*
92. **CARDIAXX** – *Electronic Zoo*
93. **TOTAL CARNAGE** – *ICE*
94. **CAVITAS** – *US Gold*
95. **WESTPHASER** – *Loriciel*
96. **FIRE AND FORGET** – *Titus*
97. **MONTY PYTHON** – *Virgin*
98. **G-LOC** – *US Gold*



99. **XP8** – *Weathermine*
100. **DEATH MASK** – *Alternative*

We'll bring you another 300 obscure games to peruse next month. By the way, let us know if you can find Dizzy's Excellent Adventure and claim a prize...

Burn Out

The hardest track included in Burnout Part 1. It'll take you weeks to master the spiky donut track

Hugh Poynton makes old couples in brown Allegro's look like speed fuelled wild eyed joy-riders. Not the perfect choice to review Vulcan's latest auto destruction fest then

A question: Do you reckon any kid in the world has ever played with toy cars and not played at crashing them together? I seriously doubt it. When we were kids we used to play at making the toughest Lego cars possible, run them along the ground until they reached a decent speed and crash them into your opponent's car. The cars were tough but, unfortunately, only as tough as the lego they were made out of. The playground used to look the road to Basra on a bad day. Its a fascination, a sicko morbid fascination that almost everybody shares (do you reckon hundreds of years ago people had fascinations with crashing horses together? It makes you wonder).

Burnout, Vulcan's impressive high spec arcade game is another example of the simple pleasure people gain from crashing cars. Like Destruction Derby, it actually elevates the pastime into a sport. Set in a future where media corporations will do anything to retain their hegemony of the airwaves, and people are so fatigued by constant death and destruction their taste in sport has changed somewhat.


A particularly scary bonus round

No longer satisfied with Wolf making scary faces at the audience when Rupert from Richmond yanks him off the rings on Hang Tough, these future Sky subscribers want death destruction and blood, preferably by the skip load. As in films like Rollerball and The Running Man, the contestant's eagerly sought prize is their lives. In this apocalyptic future, to try and pull in as many viewers as possible, the corporations show what the public want - Burning - a nightmare meld of a destruction derby, dodgems and monster truck shows.

At first glance Burnout is visually very impressive, the fully rendered graphics give the game a high quality feel – it looks more like a game you might find in an arcade. The sound is also pretty well done and, in general, the game strikes you as being very highly polished.

Burnout stuck me as being a pretty amusing and entertaining arcade game. Another name for it could have been Battle Dodgems, because that is the basic aim of the game - bounce other cars onto the vicious looking spikes on the perimeter of the play area or shove them over the edge of giant precipices.

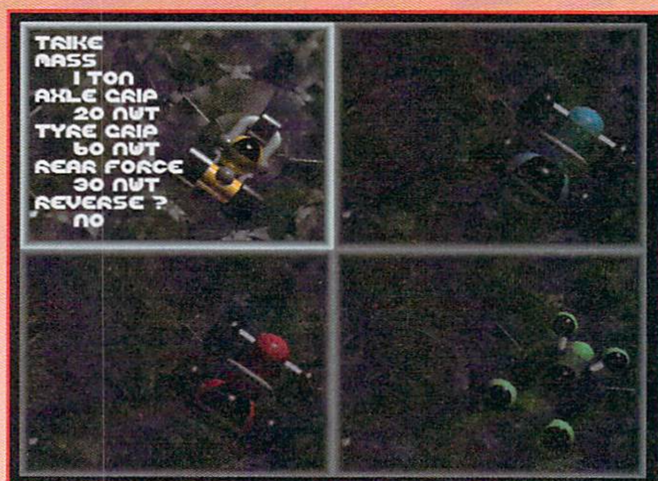
How you choose to do this depends on whether you go for brute force or manoeuvrability. You can drive a three tonne monster car and just shunt other players until they're flatter than a month old pint of lager or pick a zippy little trike and rush around like a demented mouse attacking the other players on their unprotected flanks.

Burnout can either be played as a tournament, where you have to complete eight rounds on the four different arenas, or as a deathmatch, which can include up to four players. Cars can be upgraded, weapons attached, brakes improved and shields added.

Like many of Vulcan's releases, this is deceptively addictive. The game totally suprised me, it looked like a fairly simple arcade game, interesting in a brainless way



That'll be £2000 for parts and labour guv...



The Trike. For girls and la las



'The Chicken Run' accelerate as hard as possible and brake before you hit the solid bits at the end



The Space Volvo. Heavy Metal, the hardest car in the game

for a few hours but ultimately boring after that. My perception was shattered after spending most of one Monday afternoon in the office trying to be Burnout champion 2045. The four tracks are different enough to warrant you souping your car up in a number of ways to stand you in good stead for winning. The donut shaped tracks require good brakes, the circular tracks good shields, and so on.

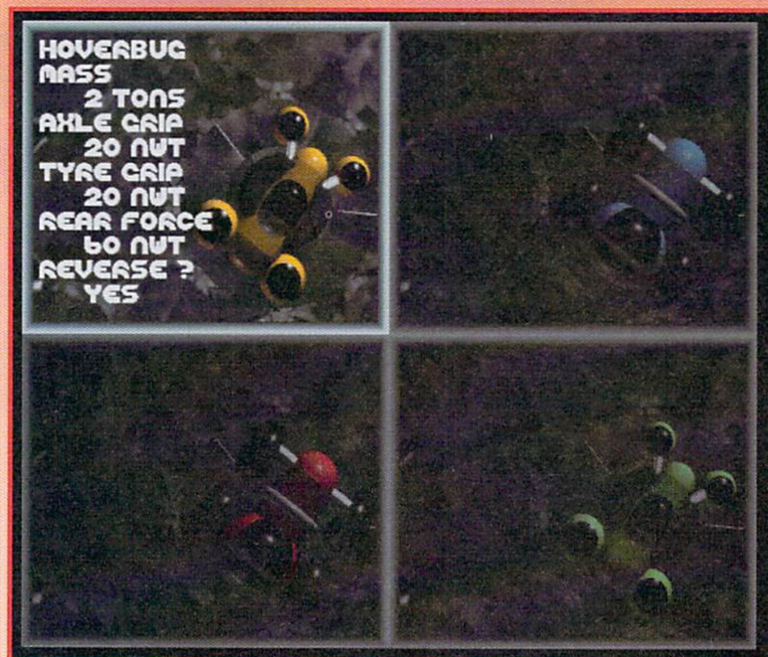
However, there is something you should be aware of if you buy Burnout. When you buy the game you are basically buying the shell of the game. I expect that Burnout will become very popular because of the endless possibilities the game affords; Worms with only four levels would be, lets face it, fairly crap. That is the problem Burnout faces at the present moment. With only four battle arenas available at the moment, completing eight rounds in each does not take that long.

Another basic problem is that the gameplay area just feels too small You have four cars on one screen and they're meant to butt each other out, Sumu style. This is good fun, but rarely takes longer than about 30 seconds to do and there is not a vast deal of skill involved. If there were a selection of maybe 10 or 15 screens included with the game, this might have been alright, because the amount of time required to master each screen would have given the game some extra depth.



The problem is that you only get four screens and in most simple circular arenas, you either get bounced onto explosive spikes or fall off the edge. The game would have been infinitely better if only the arenas had been much larger - say four screens that scrolled. I think this problem could well be cleared up however, when the future arena disks become available and the arena editor program allows you to create more challenging and ingenious arenas.

Reviewing Burnout at the moment seems to be quite difficult because, as Vulcan has made clear, the game is so expandable that reviewing the bog standard version seems almost unfair. This very limited number of levels just doesn't provide enough depth to the game, 10 levels would have you playing the game constantly. Four just ensures you play it until you've mastered those four tracks and then you've got to wait for the data disks. However, when the future car and data disks are brought out, there will be little to stop this game from becoming a runaway success.



The Hoverbug is definitely the coolest looking car

THE LOW-DOWN

PUBLISHER	Vulcan
DEVELOPER	Inhouse
CONTACT	01705 670269
PRICE	£16.99
DISKS	5
SUPPORTS	All 1Mb Amigas

GRAPHICS	85%
SOUND	85%
PLAYABILITY	88%

REVIEWED BY HUGH

OVERALL SCORE

86%

Guildhall Goodies...

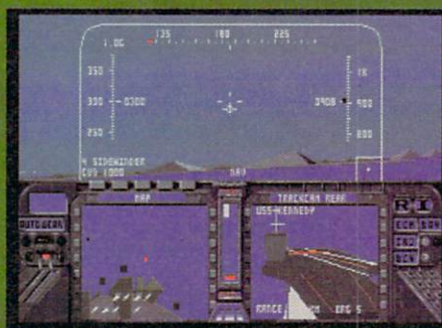
Hugh Poynton investigates an old Amiga classic.

F19 Stealth Fighter

Back in the early days of computer gaming Microprose was the undisputed king of the simulation. It had a big stock of games that were top quality products in the late '80s. Coinciding, as they did with the rise to fame of Tom Clancy and the techno-thriller, these games seemed to mostly involve killing Russians. A variety of games such as Silent Service, Team Yankee and F15 all centred around stopping the dastardly Reds steam rollering across Europe. F19 was the cream on the pudding of this particular generation of sims.

When it came out in 1988 F19 was remarkable. Although nowadays you can probably get a toasted sandwich maker with more than enough processing power to run this game, in the late '80s the game looked better than any other flight sim. For the first time you could see an accurate depiction of your plane from loads of different external views and you could view the enemy before blowing 'em into next Tuesday.

As part of its re-release campaigns, Guildhall is giving F19 a new glimpse of daylight and, in an age of texture mapping and AI enemies, it still cuts the mustard. The aim of the game is to fly your weird looking plane into trouble spots around the world. This was in 1988, in the early days of Peristroika, so many of the targets are in the old Soviet Union (the commies did make damn cool baddies). You also get to have a go at North Africa's cheesiest looking dictator, purveyor of white teeth and bubble perms, Colonel Gaddafi.

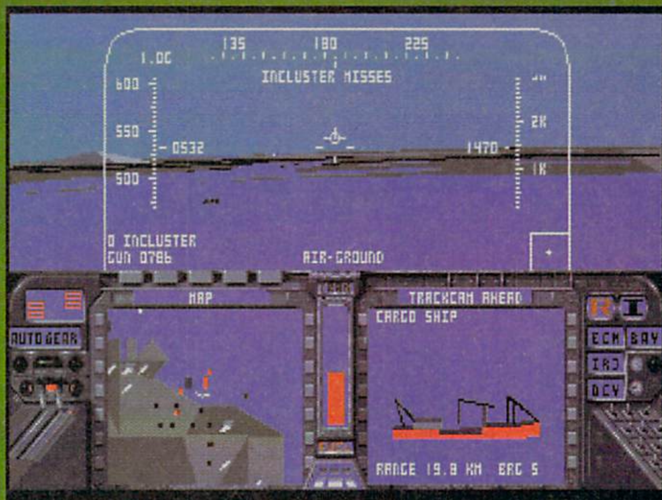


Although not massively detailed, the graphics do have a crisp, pleasing look to them

F19 shares many of its options and features with its big brother F117A, which we reviewed last month. As in F117A you are given the option of flying in a covert war, limited war or full scale conflict and you can choose the quality of your opponents.

However, unlike F117A, F19 is very fast to play. You don't spend too long reaching your target destination and there are normally tonnes of enemy planes and missiles to deal with once you get there. Graphically, the game isn't brilliant but this isn't surprising given the game's age. Most of the planes, ships and buildings are fairly simplistic polygon shapes, but are recognisable all the same.

Despite the fact that it is a little long in the tooth now, F19 is blessed with bags of playability. Guildhall is selling this game at a very competitive price. If only to see what games looked like almost a decade ago, when the Amiga and Atari ST ruled the industry, I'd buy this interesting little oddity.



Bored with shooting Russian's, Captain Hughster goes for a French Trawler instead



Duck in under the radar to give the Russians a pasting



One of the rather mean looking baddies

THE LOW-DOWN

PUBLISHER	Guildall Leisure
DEVELOPER	Microprose
HD INSTALLABLE	Yes
PRICE	£14.99
SUPPORTS	Any 1Mb Amiga

GRAPHICS	75%
SOUND	75%
PLAYABILITY	88%
DIFFICULTY	Average

OVERALL SCORE **86%**

Islona Bonanza

Islona, a new games label, is set to open the floodgates with many new UK releases in 1997. HUGH POYNTON finds out more

Something strange is happening in the Amiga gaming world. A good year or so since the major software houses started curbing their development of Amiga products, software companies are emerging, like the proverbial cockroach after a nuclear war, to lay claim to the Amiga games market.

Vulcan Software, in only a few short months, has expanded its software collection from a handful of games to an impressive library including sims, beat 'em-ups and platformers. Companies such as Applause and Mutation are producing quality games. Because the 'big boys' have withdrawn support for the format, Amiga development companies have sprung up to feed the demand for games. Although, in the present climate, the risks are much higher, so too are the potential pay-offs.

1997 sees a new player joining the ranks of Amiga dedicated software companies. Islona, a subsidiary of Epic, has announced this month that it is to launch an unprecedented 30 Amiga games into the UK market. These games, a mixture of European games not yet seen in the UK and brand new games, represent the largest release of this type for the format in years.

Many of these new games are available in demo form on the Aminet, however, we'll give you a taster of Epic's new releases:

Flyin' High

Flyin' High is a brand new, texture mapped, multiplayer racing game that will spearhead the new Islona releases. From the screen shots Flyin' High looks like a quality arcade style racer of the sort the Amiga hasn't seen since the release of Xtreme Racing.

Although details for this particular game are sketchy, there will be a number of different tracks in city, forests and the snow.


Pedal to the metal with Flyin' High

Sixth Sense Investigations

One of Islona's most exciting new releases is called Sixth Sense Investigations. Currently being developed by a Swiss software team called CineTech, Sixth Sense Investigations is expected to be released in May 1997. The game is a comedy graphic adventure about a buddy buddy detective team who solve the problems and mysteries of their rich clients. In a twist slightly reminiscent of the classic '70s comedy Randall and Hopkirk Deceased, the two are aided in their work by the spirit of a grumpy old git.

Written in a style similar to that of Sam and Max, Sixth Sense Investigations makes use of the VEGA graphics adventure system which allows it to run at 50 frames a second and enables the player to zoom in on the various characters. The game will also include over 30 different locations and speech in six different languages. It looks as though the game will be able to run on any Amiga with 2Mb and will also be available on CD Rom.

Budget Puzzlers

In addition to the new and imported games, Islona will also be releasing a series of 10 budget puzzle games priced at £7.99, such as the 100 level puzzler Marbleous.



Columbo meets Bob Geldoff...



...or Leisure Suit Larry with cool hair?

Mutation

Hugh Poynton talks to Adrian Cummings, single handed saviour of Amiga platform games

Q When did you decide to start producing games for the Amiga and what prompted you to support the Amiga platform when almost every software developer was abandoning the machine?

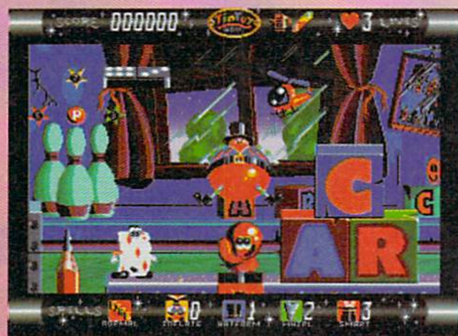
I first started writing for the Amiga back in 1988, and had my first commercially released game published in 1990. After a few years working on other titles and platforms for various publishers such as Core Design, I eventually moved into the PC development side of things which turned out to be a nightmare to get together. In the end, to get my work published and make a living, I decided the only machine possible to publish your own work on, without a large investment of cash up front, was the Amiga. After around seven years of games software development for other people, Mutation Software mail order was born, but it hasn't been easy.

Q How do you see the future for the Amiga? Do you believe high street retailing of Amiga has gone forever?

After coding on the Amiga for some years and then leaving the market, only to come back to it again, the first thing I noticed was that all the 'Big Boy' publishers had pretty much left the Amiga for dead. As a developer in say 1992/93 when everything was still going fine, to get a good publishing deal with a good publisher and make pots of cash was relatively easy compared to the situation now.

I would say the Amiga's future is a completely different ball game now, and unless somebody buys the machine and puts it back on the high street shelves with new hardware and some heavy marketing, I feel this is the way it is going to stay for a while to come. If Phase-5 could come up with a cut down version of its A-Box machine for around £399 for the mass market, I believe we could be talking serious good times ahead.

Q Many of your games seem tongue in cheek, quite cartoony and funny, do you have a particular preference for this type of game? Have you any plans for making, say, a Doom clone or a strategy game in the future, or are these fun arcade/puzzle games almost like your trademark?



Mutation's first release, Tin Toy



Some of the crowd are on the pitch...

Ah you noticed. Yes, the game style that suits my own particular talents are of course the cartoony 'completely bonkers' type of games. I would like to do some more serious games though, but I will have to work quicker than before to keep Mutation Software ticking over as a small business in this ever shrinking Amiga games market. In this type of business situation, its advisable to stick with what you know best, at least until you can afford to experiment with ideas a little more. On the other hand, I would like to think of the cartoon-style as being my sort of trademark, I can't see any harm in that really.



Q Do you believe that, because the Amiga is a relatively easy and inexpensive format to write for compared to the PC, you are much more likely to discover genuinely talented programmers and game concepts? Does the fact that writing for the PlayStation (via the 'Yaroze') or PC is so prohibitively expensive that the games that will emerge will be less original and more safe? What advice would you give somebody hoping to program and produce their own game on the Amiga?

I believe the Amiga is the only affordable platform to develop and publish on, from the small developer/publisher point of view. Yes there is the PC, but we really are only talking CD-ROM, not floppy here, and if you are trying to make a start in the world of computer games and publishing, you are not going to get far on that format without a solid game, a fair bit of money for duplication and packaging and a lot of blood, sweat and tears. I personally have tried it, and vowed not to try again until I had a good line up of published Amiga titles under my belt first.

The one thing I feel I got wrong first time around, was that I didn't realise the need for publishing experience at some level first, before entering what is a much bigger arena. My advice to anybody wishing to enter development and publishing would be to cut your teeth on the Amiga first – its a much smaller piece of cake to deal with from all angles. Never bite

Ovation



Galloping goblins! Adrian's latest, Castle Kingdoms



The Peter Beardsley look alike squad. Another new release, Monster Football

off more than you can chew, you could get in complete mess and waste a fair amount of time and money.

Q In the current environment, is it easier or harder to design and sell Amiga based products? Obviously there is less competition now many of the major software companies have dropped out of software development and distribution, but the market has also dwindled.

As I mentioned earlier, I have to work more quickly and efficiently now than I ever did before, so yes, it has become much harder. At the end of the day, the unit sales of my games are much smaller than they used to be, and it was a shock at first when I realised that my previous games used to sell around 10-15,000 units on the Amiga and ST back in '92-93. This is one reason I chose to release games on all Amigas, not just AGA only – to maximise the market.

I would like to concentrate more on purely AGA, but for some reason it would appear the OCS/ECS market is still much larger. I have been accused of taking a step backward so to speak (which would be unheard of on the PC), but I have to go where the market is. I am not able to change the situation on my own at the moment, and the AGA market does not generate enough sales (for me at least) on its own to exclusively produce games for it! Maybe there are more pirates on AGA, I'm not sure.

Q Do you fancy programming for another platform other than the Amiga? What is the special attraction of the Amiga for you?

I have programmed on other platforms but consider the Amiga the only machine worth working on the at the moment because I can personally make money out of it as a small developer/publisher. I mentioned the possibility of working on the PC earlier, but the Amiga is a dream to work on and I can see Mutation producing a lot more titles in the future, as long as I can sell them.

It comes down to this :I love the Amiga, always have, always will and no other machine ever had that magic appeal for me. For a machine that is supposed to be six foot under, it's still remarkably alive and kicking, shouting, 'I'll be back'.



Cheese 'n' tomate shoot 'em up



One of Adrian's early games, CyberPunks

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AMIGA GUIDE

With Photogenics, even Neil Mohr can be creative



Cobbling it all together

This will probably be the last instalment in this introductory Photogenics tutorial and we shall look at some ways of blending images together to produce a whole new design. It's a technique used by many people, the results of which can be found adorning magazine and Web pages.

More than likely these graphics were put together using Photoshop on the Mac, but the same results can easily be achieved from within Photogenics by a number of different techniques.

Before starting a project it is a good idea to decide what size images you are going to have to work with, considering both how souped up your machine is and where the final work is destined for.

For video work you will more than likely be working at broadcast resolutions 768x566/482. For graphics destined for Web display, you can either work directly at the end resolution that is normally fairly low, or start off using a higher resolution and scale down the finished work. Quality work that is to be used in publishing will normally be out of the question for most Amiga users, the resolutions needed are simply too high. Typically a full A4 page image would need to be 1200x1800 and would require 16Mb and an 040 processor.

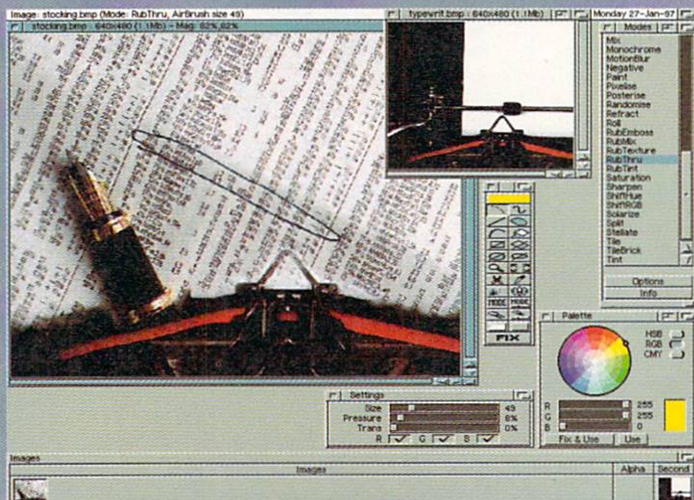
The first thing you need to do is sort out what pictures you will want to be using and get them ready, either scaling them to a size you can use or cutting out the bits you want. It also helps if you know what end results you are looking for, as with Photogenics you have to add images in a laying process, one on top of the other.

For the first step this involved using the RubThru paint mode. By selecting the typewriter as the secondary image, when you paint on to the main image, the typewriter shows through. This makes it straight forward to get the bottom of the typewriter to show through, and to get the fading effect by selecting a large brush with a low pressure (around 5 per cent) you can quite easily create a good

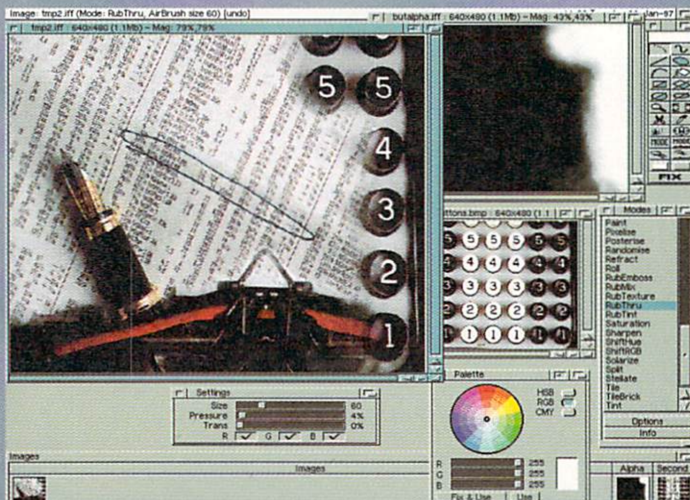


The finished article, a 640 x 480 image compiled on a 6Mb A1200 running 20Mb of virtual memory, and being used by someone with very little artistic talent

Altered Images



Using the RubThru paint mode you can quickly get the results you want, and then take a little more time to fine tune it



Using the standard alpha channel takes more time but provides better control and you can save the alpha off for use later

fade effect with little effort.

The second technique is a little more involved and uses an alpha channel to control how the two images are merged together. Again, getting the general shape of the alpha channel is straight forward. To then blur the edges you can either airbrush on fuzzy edges or use the Defocus paint mode.

To get more control over the secondary image, using the Compose mode can help. To add the telephone image I decide where on the main image I would want the dial to appear, and drew a rough semicircle. By then switching to the compose mode I could move the telephone image to the right position and fine tune the alpha to get the results I wanted.

Finally, I had a picture of some paper with confidential in the top left corner. By cutting out this top corner, and after touching up the surrounding area with the smudge tool, I created a clone and blacked this out so it could be come the mixing alpha. Using a large brush set to around 80 pixels and pressure of around 40 per cent I quickly drew a line the same length of the word that would mix in the confidential word, as it had a nicely blurred edge.

Setting everything up for a compose and using the compose alpha, I moved the compose box to the top left of the main image and scaled it to a suitable size and once happy, clicked OK, creating the final image.

Don't forget

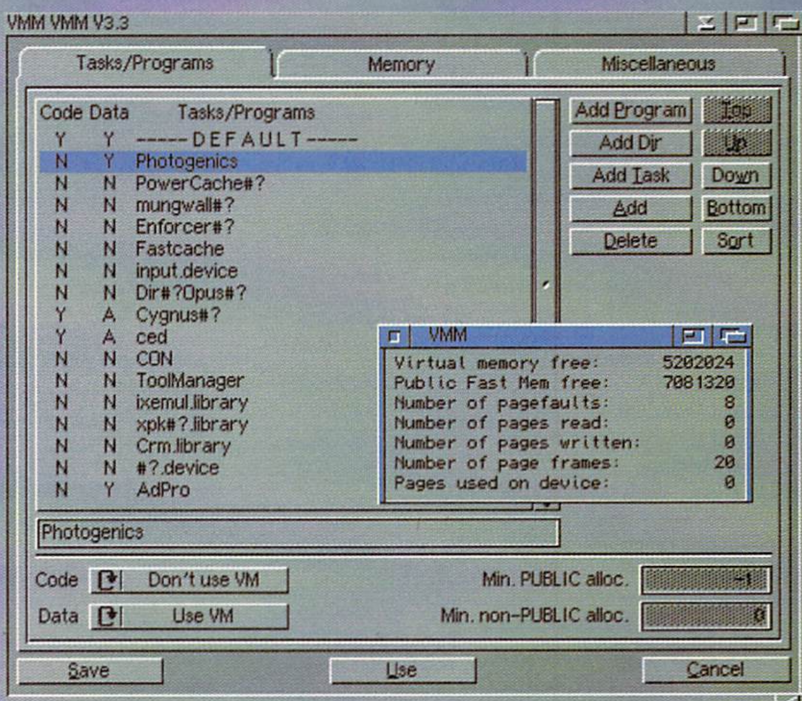
It is important that when you start out on a project you do not fall at the first hurdle, that being insufficient memory. Depending on what system you are using and what size of images you will be handling, you will have to make sure that what you are planning to do is within you machine capabilities.

I am assuming most people will be using an A1200, giving you 2Mb of chip memory to play with. This on its own is fairly limiting, not only for the size of images you can deal with, but it will also greatly slow the operation of the machine even in 16 colour modes. Generally the largest image you could load would be around 320 by 256.

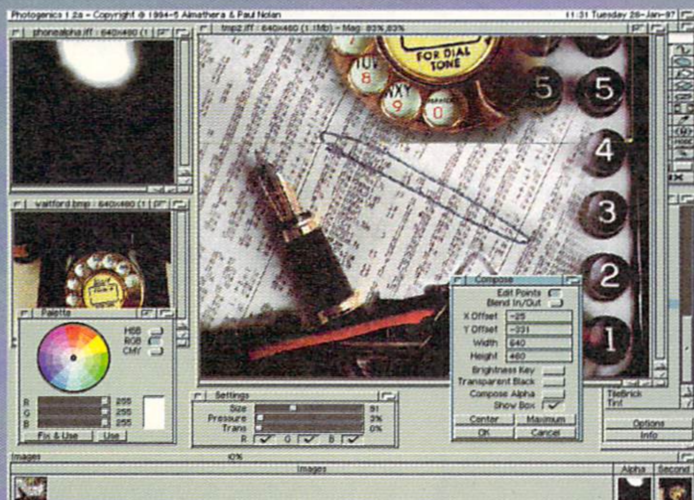
If you want to use Photogenics, even casually, you really need at least 4Mb of Fast RAM on top of your initial 2Mb of chip memory. With this amount not only will you easily be able to use large 1x1 ratio screen modes, but you will be able to have multiple image windows open, allowing access to Photogenics' more complex alpha and composition modes.

Even with this amount of memory however, you will not be able to go too crazy on the size of images you can play with. I would think for a single image 800 x 600 would be quite comfortably handled by Photogenics and, at a push, 1000 x 800 could be tackled. Problems arise when performing alpha channel operations with three equal sized images have to be all stored in memory at the same time. In this situation you will again be limited to around the 320 x 256 size. For real freedom you will want at least 8Mb of fast RAM which, if you are considering buying a new accelerator, should be the minimum you go for as it now costs under £40.

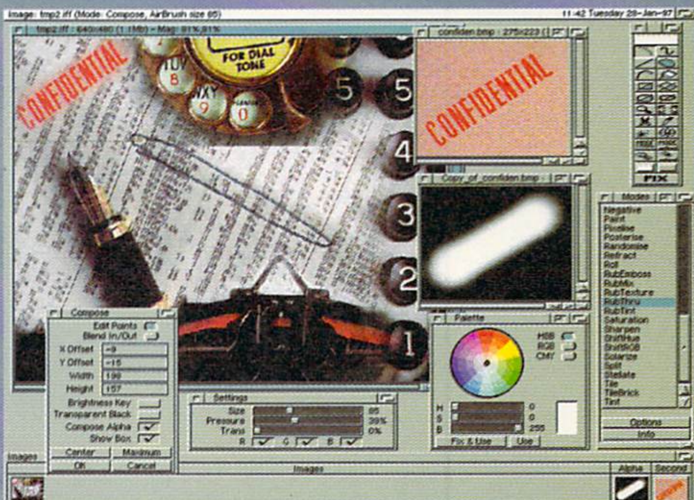
If you are still stuck for memory, but do have a machine fitted with a MMU, there is always the possibility of using virtual memory, as Photogenics works perfectly well with it. Obviously you will have to put up with the slower image redraw but that is the price you pay. If you do try virtual memory make sure you only allow virtual memory to be allocated for program data and also only allocate virtual memory for fast memory not for chip.



If the worst comes to the worst, Photogenics works perfectly with Virtual Memory Manager, that now comes complete with a BGUI interface if you do not like MUI



Basic use of the Compose mode gives even more control, really I should have cut out the dial and added more black to the bottom



Using the alpha compose mode the alpha channel will be scaled and moved along with the secondary image

Neil Mohr takes your AmigaDOS education to heart



Dey do do dat, don't dey?

It has just occurred to me that it may be a good idea to cover the basic AmigaDOS commands and what their uses. Generally commands can be split into different categories that dictate when, and on what, you would use them.

The first group we will look at are file system based commands that allow you to manipulate files, get information about files and the file system and alter certain aspects of how the file system works. Other types of commands include task based commands that allow you to change things about currently running tasks and AmigaDOS script based commands. Remember that with just about all these DOS commands, wildcards can be used to include or exclude files. To check any of the following commands parameters, just type the command named followed by a space and a question mark.

Assign - Used to control, list, add and remove devices from the current AmigaDOS assign list. Due to the extensive use of assigns and device names under AmigaDOS, the assign command is widely used, and a good knowledge of how the assign command works comes in very handy. I covered one use of the assign command back in the Christmas 96 issue

CD - Change Directory, allows you to change which Shell's current directory. Remember that any AmigaDOS commands will only work on files in the current directory, unless you specify the exact file path they need to use. Really this command is only now used in AmigaDOS scripts as you can enter directories straight into the Shell and it will switch to it

Copy - Allows you to copy files and drawers to different locations. Specify the files to copy and then the location. Use the ALL switch to copy all the sub directories and their contents. The CLONE switch is used to keep the files current creation dates and the QUIET switch turns off any output text

Delete - Deletes the specified files, so do not do delete #? unless you are sure. To delete sub-directories and their contents use the ALL switch, and to include delete protected files use the FORCE switch

Dir - List the files in a directory. You can use the FILES and DIRS switches to force the command to only list files or directories

Execute - Use to run AmigaDOS script files

Info - Returns information about all the currently mounted disks

Install - Used to write, remove and check the boot blocks on Amiga floppy disks, making them bootable

List - Can be thought of as an advanced DIR command, not only giving much more information about files, but providing much more advanced ways of controlling its output

Lock - Allows you to software write protect any mounted disk. Enter the drive name and whether the lock should be ON or OFF. You can also add password protection

MakeDir - Creates a new directory

Path - Lists and allows you to alter the current command path, this is a list of directories that AmigaDOS will search through when a command is typed in to the Shell. If added to the command path you need to update Workbench to use the same one, type **LoadWB NEWPATH**

Rename - Rename a specified file, specifying a new file path will move the original file to the new directory

Version - Returns, if possible, the version information of a file

Which - Will return the directory location of any file name you give it. This command only searches the current command path, not your entire hard drive. You can use the ALL switch to tell the command to return every occurrence of the file, as normally it stops at the first file it finds

Ctrl C/D - What do you do if you accidentally start a delete or copying process and need to stop the computer before you totally devastate your machine? Bang your head against the table, swear very loudly, reset the machine? Nope just press the control and C keys to break the current Shell process

Monitor emergency

Normally this column is more concerned with giving you the knowledge to fix and avoid problems that can happen with your Amiga, but for once, here is a possible health problem that could occur.

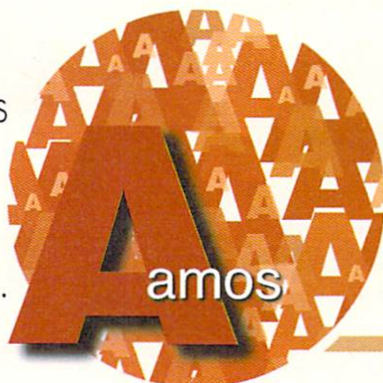
Recently, an EU directive was passed that said the vertical refresh rate of any computer monitor used in an office should be no less than 70Hz. The point is not to give people nicer screens, but reduce the possibility of eye strain and headaches caused by low refresh rate screens. On the Amiga there is only one monitor driver that can do this – Euro72. I imagine most people would be using DblPAL mode that only has a 50Hz refresh rate, far below the recommended level.

You may be think this is a load of hokum brewed up by the busy body EU bureaucrats, but one of our art editors gets an almost instant migraine from just looking at a DblPAL screen and since switching to a Euro72 screen mode, I cannot bear to use a DblPAL mode, so you may want to consider a switch yourself.



If you are suffering from eye strain or headaches when using your Amiga, perhaps a change in screen mode could be the order of the day

Phil South presents some more AMOS routines for your collection.



Hypnosis Made Easy

These excellent routines from Marcin Szumiela @pdi.lodz.pl> are really very nice indeed, very groovy. They all do pretty much the same job with a few variations, but they are great to watch and have a lot of nice routines for you to use your own programs.

The programs draw a range of lines on screen and then colour cycle them to make a hypnotic spiral. I love programs like this and I could look at them all day. Except of course I would probably go a bit bonkers. Okay, more bonkers.

The programs start simply enough, with a HIDE and DEGREE command, to conceal the pointer and set degrees as the measurement of arc rather than radians:

```
Hide
Degree
```

Then they open and interlaced screen for the highest resolution, and turn everything else off:

```
Screen Open 1,640,512,16,Hires+Laced
Curs Off : Flash Off : Cls 0
```

These two variables are flags, which will be tested later on:

```
KONIEC1=False : KONIEC2=False
'Palette 0,$FFF
```

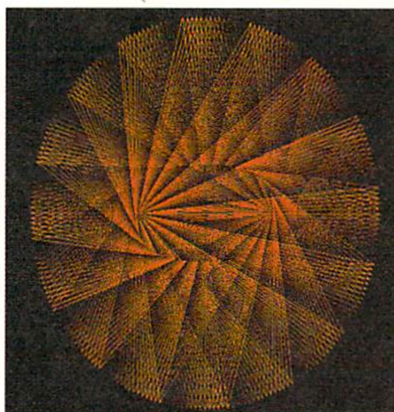
You will notice the Palette command is REMmed out. Then we begin the calculations. We are calculating an arc which curves around and meets itself. Around this arc we are drawing a set of lines, so we are effectively drawing two arcs – one for one end of the line and one for the other end:

```
XS1=160*2
YS1=128*2
RX1=100*2
RY1=100*2
KROK1#=0.5
XS2=160*2
YS2=128*2
RX2=50*2
RY2=50*2
KROK2#=1.05
Degree
```

Now we set up a loop to set up the colours:

```
For I=0 To 15
Colour I,I*256
Next
KOLOR=1
KONIEC=False : KONIEC2=False
```

Now we can make the drawing based on those calculations using the main REPEAT/UNTIL



Great effect's can be created easily

loop:

```
Repeat

Add KOLOR,1,1 To 15 : Ink KOLOR
ALFA1#=ALFA1#+KROK1#
If ALFA1#>=360 Then ALFA1#=0 : KONIEC1=True
ALFA2#=ALFA2#+KROK2#
If ALFA2#>=360 Then ALFA2#=0 : KONIEC2=True
X1=XS1+RX1*Sin(ALFA1#) :
Y1=YS1+RY1*Cos(ALFA1#)
X2=XS2+RX2*Sin(ALFA2#) :
Y2=YS2+RY2*Cos(ALFA2#)
Draw X1,Y1 To X2,Y2
Until KONIEC1=True and KONIEC2=True
```

You remember that I said we'd test those flags some time? Well, there they were. Finally we shift the colours along as we said, and wait for a key press to drop us out of the program:

```
Shift Up 1,1,15,
Wait Key
```

You could substitute a wait and a specific amount of time if you wanted this to be part of a title screen of a game for example.

To get a different effect try changing the KROK2# variable:

```
KROK2#=5.05
```

or:

```
KROK2#=0.5
```

I don't know for sure, but it could be that the variable has to be all 5s, but as each example we have has this as the basis of the shape, we should look into that.

```
KROK2#=50
```

I like that one, or even

```
KROK2#=500
```

Try a few values yourself and see what comes out. Another way to make the program go crazy is to try fiddling with the big variable list at the start, which originally looks like this:

```
XS1=160*2
YS1=128*2
RX1=100*2
RY1=100*2
XS2=160*2
YS2=128*2
RX2=50*2
RY2=50*2
```

Try adding numbers to the RX and RY values:

```
RX1=100*3
RY1=100*2

RX2=50*3
RY2=50*2
```

This changes the shape of the circle to an oval and adds detail to the centre. I like these ones:

```
RX1=100*2
RY1=100*1

RX2=50*3
RY2=50*2
```

but there are many others you can try. I wouldn't advise going much out of the range 1-4, as you don't really have much space to play with.

This is a nice effect, sure, but what are the applications? Title screens are one thing to look at, where you can have a nice hypnotic thing happening behind the title of your game. You could even have these things in the background of the game itself or as a warp effect when you go to another level, with a suitably warpish sound sample on the audio tracks. Where you use it is up to you, but this is a devilishly useful effect and congratulations are due to Marcin for coming up with it.

You should now, having seen the effect, be able to figure out how to change the settings to make the shapes change. As a little bit of homework, try making an oval which is tallest from top to bottom (as opposed to left to right) and try making a square or a triangle. Or both! How about the colour? If you can figure out how the colour mapping works you can alter the base colour and make it all shades of blue or green.

The best listings I receive will get a copy of my book "Mastering Amiga AMOS" and, if you're really lucky, I might sign it too! (the cheek of the man! – Ed).

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M115 MAHONEY & KAKTUS 2 - 40 tunes compilation
M125 ADAMS FAMILY
M150 TIFFANNY - I Think We're Alone Now
M171 MADONNA - (Like a Virgin)
M173 JANET JACKSON - RHYTHM NATION
M177 PET SHOP BOYS
M184 SAM FOX (Please Me)
M186 MADONNA (Rescue Me)
M188 JOE LE TAXI
M189 MICHAEL JACKSON (Smoot Criminal)
M194 JESUS ON E's (2 disks)
M205 RAVE - More Rave
M262 A TO Z OF C64 GAMES MUSIC (4) Brilliant
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U117 NORTH C compiler (2) bril programing language
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U135 MOST USE UTILITIES (2) very useful util coll
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U170 BIORHYTHMS V4.01 display your own biorhythms
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U301 AUTO DISK LOGGER catalogue your disk
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U324 GRAPHIC util 2(3) even more Graphic tool
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U334 EMULATOR COLLECTION II (lot of emulator)
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U338 MULTI VISION (2) disk/files utilities
U340 HACKER-TOOLS many ripper tool
U350 POOL TOOL-predict horse with best chance
U351 RACE RATER Similar to above. but both
U358 STAR CAT 2-create catalogue disk esay
U359 SEEKER find lost file on flopy & Harddrive
U360 R.P.G (2) adventure creator
U363 DISK REPAIR KIT-salvage & repair damage disk
U372 WORD SORT process ASCII file
U377 NCOMM III more modem software + packer util
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U702 V MORPH V2.create smooth morph animation
U703 POOL TOOLS 2(Latest)prediction horse racing.
U705 TRONI-CAD-best create circuit board+examples
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U708 LAST WILL & TESTAMENT-write your will
U710 PERFECT-PAINT 32 Very easy to use paint package
U714 ENGINEER KIT various test kit for Amiga
U718 MAGNUM 1.9 REGARD the best disk magazines creator
U721 FONT FARM V3 + load of font + font viewer
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U977 MAGICWB ICON ARCHIVE (3) 1000 s of MGwb icons
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U995 PRO-GAMBLES V2 must for all gamblers.
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U998 EXOCTIC RIPPER V3.b Latest ripper
U999 HD MEMORY (new collection) require MMU
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U1002 TURBO CAT-(WB 2&3 only) catalogue creator
U1003 LOTTORY WINNER V2-new version
U1005 BASIC-ELECTRONIC-Teach all about eletronic
U1006 LOTTO LUNACY V2 Update latest lottery predictor
U1007 ALL NEW HARD-DISK & FLOPPY DISK TOOL 2 (2)
U1008 HARD-WARE PROJECT 2 (2) Build dozen of project even how to fit Amigas in a tower case
U1009 DATA ALERT 3-explain why your computer crash
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GAMES

G222 MEGA 21 GAMES amazing 21 games
G235 DRAGON-CAVE brillant 3D puzzle games
G240 QUADRIX very addict excellent
G242 TAKE EM OUT like to Operation wolf
G253 DESTINE MOON BASE Arcade conversion
G272 TANK BATTLE 2 player tank battle game
G278 ARCADIA the best ARKNOID clone
G300 Q-BOID cross TETRIX and INVADERS.
G303 DIMENSION X 2 player LIGHT CYCLE GAME
G310 NEBULAR Excellent 3D shoot em up
G316 GALACTIC Excellent 8 levels arcade
G317 HYPER-BALL Speed ball +level editor
G320 GHOST-SHIP Very good 3D adventure
G325 BATTLEMENT hunch back of notcha
G326 MEGA GAME COLLECTIONS III 3 top games
G329 MADONNA NUDE PUZZLES for 18+ only
G331 GRAVITY massive space exploring game
G333 CYBER-NETIC Brillant 8 way blaster
G334 DONKEY KONG -(A1200 order code AGA296)
G335 CRAZY SUE II- best platform to date
G342 SUPER SKODA CHALLENGE (& track editors)
G344 STAR-TREK similar to RAID2 but harder
G355 DOODY very cute & extremely addict
G356 WONDER LAND amazing graphic recommed
G362 DELUXE PACMAN + best pacman ever release
G367 CARD GAMES collection
G368 WIZARD-DOMAINS-dugeon type games
G370 KALATRIZ (notA1200) arcade tetriz clone
G373 AIR ACE II Very playable shoot em up
G384 OTHELLO best PD version
G386 MOUSE IMPOSSIBLE very addictive puzzle
G390 TETREN most polish Tetriz ever release
G392 STRIKEBALL brillant base ball clone
G399 TRAILBLAZER brillant (not A1200)
G400 FIGHTING WARRIOR like street fighter
G404 DOMINOES only one of it kind on PD
G406 TOTAL WARS -strategy like chess in space
G411 BATTLE CAR 2- 3D car racing
G431 NESTER CARD GAME- hours of fun for a quit.
G435 ROULETE amercan roulete excellent
G438 TRAILBLAZER 2 C64 conversion
G441 E-TYPE 2- very good asteroid great graphic
G443 OLEMPIAD DISK (2D) Olympic sport events
G445 DESCENDER GAME tank, search & desender
G446 OBLIDOX excellent Arcade/Puzzle game
G448 PARACHUTE JOUST quite playable
G455 CASTLE OF DOOM VG graphic adventure.
G460 WIBBLE WORLD GIDDY Large platform game
G467 CASH FRUIT- good fruit machines
G478 AMOS CRICKET cricket games
G488 EXTREAM VILONCE 2 player battle out
G489 ENGIMA MACHINE very challenging puzzle
G490 MEGA BALL 2 very playable break out clone
G491 BOUNCE & BLAST brillant platform 10/10
G492 ZOMBIES & DEFENDER 2 fantastic games
G494 MERCANERY SIMULATION 3D wars games
G499 LIFE -simulation very interesting
G500 TRANSPLANT dozen of level fast arcade.
G501 KLAWZ THE KAT-great platform games
G511 HIGHWAY HELL like SPY HUNTER on the C64
G531 OPERATION FIRESTORMS-brillant
G534 CASTLE KUMQUAT similar to Alien breed
G535 BLACK DAWN brillant graphic adventure
G538 MORIA 5.4 The latest Dungeon & dragon
G539 BRIDGE Good version of bridges
G540 ORK ATTACK bloody adventure

101 GAMES PACK III

AMIGA SHOPPER — 101 Games PK reciews 90 % in Amiga Shopper issue 54

The very latest 101 games pack 3, highly rated, review 88% in AS. This pack contain all new 101 games collection, All games are select from an very easy to use menue system. HIGHLY RECOMEND
only £11.99

G541 REBOUNCE 2 player futuristic breakout
G542 ROAD TO HELL brillant car racing
G544 SUPERTOM CAT New vertical shoot em up.
G545 KUNGFU CHARLIES mix with platform brill.
G546 RAID 4 latest vertical scroll shoot em up
G546 QUIZMASTER very good quiz programe
G552 ELEVATION games base on lift ??
G560 IMPERIAL WALKER -Base on STAR WAR games
G567 STARBASE 13 (2D) Bril like MONKEY ISLAND
G657 AMOS LOADSA MONEY best FRUIT-MACHINES
G659 MR MEN OLYMPIC (2D) many event to complete
G660 4 L.C.D DREAM 4 small hand held games
G664 NEIGHBOUR GAMES (2D) base on the TV series
G665 TIME RUNNER (WB2/3) Brillant graphic
G667 GOLF (2DISK) One of the first & decent GOLF
G668 AMOS CRICKET 2 New Amos cricket simulator
G669 MUGSY REVENGE gangster graphic adventure
G672 JIGSAW (2DISK) very playable jigsaw games
G673 BOBBY GARDEN + DIGGER (NEW) Brillant
G674 HIGH OCTANE Fast car racing (notwb1.3)
G675 TIME RUNNER amazing graphic adventure
G680 SPACE-INVASION 2 - Fantastic Galaxain
G681 AUTOMOBILES - PD version of SKID MARK bril
G682 BANDIT MANIA - Brillant fruit machine demo
G685 PROJECT BUZZ BAR -Brillant asteroid
G689 GUN FIGHT (not A500(1.3)
G690 THE REAL POPEYE 64 (a500 1.3 only)
G692 SYSTEM DEFEND-Brillant Defender clone
G698 AMIGA-BOY-Game boy emulaor + tetriz
G732 DETHELL IN SPACE. Recommed.
G735 OVERLANDER Brillant arcade MOON ALERT
G737 SERIOUS BACKGAMMON The best in PD BG
G771 STAR WOID (2 Disk) brillant Thrust
G772 UN-SENSIBLE SOCCER very similar to Sensible scoccer games. RECOMMEND

101 GAMES PACK II

(Latest) All new 101 games pack, include some of the finest Amiga PD games EG, Zeus, Wonderland, Land, Dragon Tiles, ECTS much to many to list, all games are selectable from an easy to use menus, most games com with full playing instruction
All games are select from an easy to use menu this pack is compatible with all AMIGA model
only £10.99

G773 FRUIT MANIA -Brillant Fruitmachine.
G774 TRICKLE TREAT -like DOOM on the PC
G775 FOOT-BALL MANAGER-new version
G782 SOLO ASSAULT 3D like Wing Commander
G783 SEED OF DARKNESS-Brillant graphic adven
G784 NANO FLY Superb explore game RECOMMEND
G785 THE GREAT GOLD RAID- very addicted
G787 ANT WAR V1.9 (LATEST) not 1.3
G788 ZENO-MORPH -Great grahic
G789 TASK FORCE very good MIND SHADOW clone
G790 GREEN FIVE Amazing 3D graphic like
G791 PROFFESIONAL BINGO CALLER
G792 MARTIAL SPRIT like Street fighter II
G798 6 EXCELLENT CARD GAMES collection
G809 BLITZ 2 fast action shooting games
G810 EXIT 13 Brillant puzzle
G811 TEMPORAL MISPLACEMENT-graphic adventure
G812 ADAY AT THE RACE-V.Goodhorse racing games
G820 BOULDER ORIGINAL with 80 level
G821 BOULDERDASH cave/level Construction kit
G822 BOULDER COLLECTION 2/3 160 level (2disk)
G839 BOULDER PACK with 640 level on 8 disk
G860 ALIEN NET WORK-new Spacing invader
G862 BATTLE FORCE excellent text adventure.
G863 GNU CHESS the best chess with 10 level
G868 SWORD OF YIGG Graphic adventure
G867 POWER-TETRIZ for 1 or 2 player
G868 SUPER SMASHING TETRIZ
G870 CHESS II & CHECKER One of the best around must for all CHESS or CHECKER player
G871 GRAVITY FORCE 2 1 or 2 player thrust clone
G872 SCHNEBITZ Commercial quality puzzle games
G875 DELEXE GALA v2.3(new) add new feature & bouns gamme + 2 player RECOMMEND. get it now
G876 THE KRILLIAN INCENDENT like ELITE2/Epic
G878 QUANTUM-Maze colect & escape type games
G879 RAG TO RICHES - like MONOPLY

101 GAMES PACK I

Brillant collection of over 100 games include some of the very best of Pd , like Invader2, Tetriz, Monopoly ect much to many to list,
Highly Recommed
All games are select from an easy to use menu this pack is compatible with all AMIGA model
101 game
Only £9.99

G884 WIPE OUT-mindless blasting gamse
G885 GODZILLA Another shootem up
G886 SUPER MEGA FRUIT- All new Fruit Machine
G888 DRIVING MANIAC 3D (fill vector like Indi500) car racing- very fast. RECOMMEND
G889 PLANET FALL - Luner Lander clone
G891 BUCK TOOTH ADVENTURE Very good multi level shoot/collect em up RECOMMEND
G892 PENGO 2- Maze type games. Recommend
G893 SUPER OBLITERATION Blast asteroid very similar to PANG 2 lot of weapon RECOMMEND
G894 SUPER INVASION II -New SPACING INVADER
G897 THE SHEPERD Brillant POPULUS clone. REC
G898 ALIEN GENOCIDE (2) Shoot aliens set in space.
G899 PUCKMAN. One of the better PacMan arround.
G900 SUPER-BATTLE ZONE.3D (not WB1.3)
G901 M*A*S*H a (ANTWAR 2) play very similar to LEMMING & WORM, with load of Weapon (Brillant)
G904 LAST SOLDIER (2) multilevel platform games
G905 CBBERTECH (2) excllent ALIEN BREED Clone
G906 HANGMAN any one for a game?
G907 ACE SPACE nice Platform games
G908 COLOURMANIA slide/Klatriz type puzzle games
G910 HARRY-HADDOCK- Brillant platformer games
G912 MANGLE FENDER -Brillant. Smash up other car/tank ect to win. extremly addicted. get it
G913 ARCADE GAMES CLASSIC Vol 1 & 2 (2d)
G914 HELICOPTER-play like Desert strike
G915 COW WARS. Very addicted 2 player games
G916 ISLAND -Play like Monoply.
G919 COP THE LOT Pro Latest Lottery preditor
G920 LOTTERY PROFFESIONAL This version use
G921 MONOPLY. (board games) The best version
G922 JET WILLY 3 - excellent platform games
G923 FLAMMING ENGINE-Superb car racing
G924 POWER MACHINES. Grahicaly brillant shoot
G925 SUCIDE-MACHINE Operation wolf style
G926 ZAXXON 3D Superb C64 3D blaster games
G927 BOING V3. Great platformer. recommend
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Dave Cusick wishes that Web authors wouldn't play Jeremy Beadle so often...



You've Been Framed

With HTML developing at such a phenomenal rate, there has been a marked increase in what I see as Web snobbery among the HTML cognoscenti, with their high-end PC workstations and state-of-the-art superbrowsers. Their message is simple: Certain machines and software configurations are superior. Nowhere is this snobbery more obvious than with frames, which seem to be taking over the Web despite being, in this writer's opinion at least, about as useful to the surfer as a chocolate teapot.

Frames are, of course, something of a novelty on the Amiga still. The pre-release demo of Voyager NG, which has just become available at the time of writing, offers the first genuine frame support for an Amiga browser. As you will know if you have tried it out or read a review, the Voyager implementation of frames leaves a fair bit to be desired. However, it's nice that at long last all those badly written sites which do not offer a no-frames alternative will finally be accessible, and even if Voyager's handling does not improve by the final release, at least IBrowse and AWeb promise frame support soon.

The problem with frames is that Web authors who use browsers such as Netscape Navigator and Internet Explorer 3 (which can handle frames easily) have a tendency to put messages on their homepages saying "This site requires frames; download Netscape or IExplore now!". Of course, the majority of PC and Mac owners already use one or other of these browsers, and users on other platforms cannot employ them anyway, so such messages are a waste of time and effort.

With Voyager it might well be possible to view Frames...



Even now that frames have come to the Amiga, I would not recommend adopting such an approach if you feel the need to use frames on your home page. Not only are there plenty of computer users out there without access to a frames-capable browser, who you would be alienating completely by ignoring (and as Amiga owners, we all know how irritating being ignored by the masses can be); but there are actually NS and IE3 users who prefer not to browse using frames because of the way they cause the forwards and backwards navigation buttons to misbehave. The best approach is simply to cater for frames and no-frames browsers at the same time. This is easily achieved with a little bit of extra HTML.

The most straightforward solution to the problem is to include a separate section that redirects frameless browsers to an alternative index – even if this is only a simple text affair. Alternatively you could include the frameless index within the tags, thereby avoiding having to create a whole new HTML document - although this would have the minor drawback of slightly slowing the loading speed of the page for everyone.

Even if your site uses fancy split-screen frame effects, with a separate HTML document in each part, then catering for no-frames users need not be an impossibility with a little bit of lateral thinking. After the frames code simply add a section containing a table and then use table rows or columns containing the data from those other documents.

Example HTML code can be found on AmigaPhil's Frame Page (http://www.axismundi.org/Cf/spiraea/amigaphil/frame.html), which largely inspired this rant. It also contains details of how authors testing their pages with certain browsers might unwittingly be allowing bad HTML through, making their pages unreadable to many other surfers.

I'd advise all HTML authors to take a look at this page and try to adopt the attitude that all surfers should be catered for. It is fine to throw in a few enhancements here and there for users of particularly advanced browsers, but make sure that everyone else is able to get as much as possible out of your site in terms of content. Don't be a Web snob.



...but with many browsers, even quite powerful ones, you often just get those annoying messages

Genuine Interactive Content! Honest

Have you have been getting annoyed at seeing vague headlines like that splashed all over the Web, ranting about the possibilities of Java (which admittedly are many) when it doesn't look like we'll be getting the opportunity of seeing them realised on the Amiga in the forseeable future)? Well, soon it might be possible to get your own back. A new IBrowse plug-in is under development which should make Amiga-specific Web games and applications a reality. It is called PlugSocket, and you can find out more about it at http://www.innotts.co.uk/~nicholas/socket/main.html.

Contact

If you wish to contact me, my e-mail address is dave@dcus.demon.co.uk. Questions, suggestions and feedback are all more than welcome. I also have a homepage, which can be found at http://www.dcus.demon.co.uk/.

Paul Overaa clears up a few misconceptions about sound samples



Music meets the Mathematician

It's often suggested that a good rule of thumb when taking sound samples is to use a sampling rate at least twice that of the frequency of the note being sampled. This stems from a piece of mathematics known as the Nyquist theorem and whilst the theory itself is sound enough - in practice everything goes pear-shaped.

When you listen to a piece of music, you are listening to masses of sound waves of varying frequencies and amplitudes. Sound samplers measure the amplitude of the various parts of such waveforms and so build up numerical, or digital, copies of the original sounds. Obviously one major factor as far as the final, absolute, sample quality goes is the quality of the original source. If however we restrict ourselves to being interested only in duplicating whatever 'quality' is present in the original sound then, at the end of the day, there are two fundamental variables to consider – sampling rate and the resolution of the numbers used to define the amplitude.

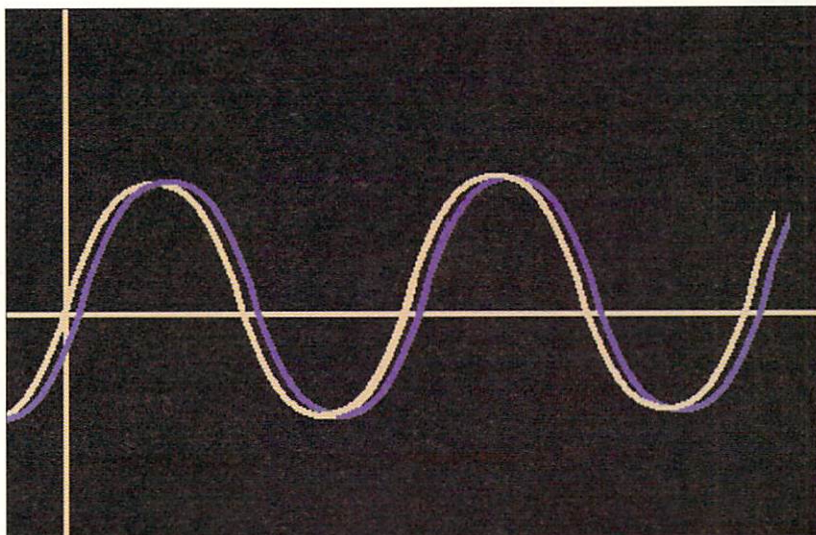
Fast sampling rates would intuitively be expected to give better waveform detail as would increasing the range of numbers used to represent the amplitude measurements. The Amiga's 8 bit digitisation then is not as good as say CD technology sampling which uses 16 bit amplitude resolution. The bottom line, however, is that the very process of any sampling of a continuous waveform always leads to information loss!

Nyquist relationship

The question now is how much information is likely to be lost, and what factors govern such loss? This is where the Nyquist theorem comes in. Before you start wondering why so much effort has been put into the mathematics of sound sampling let me hasten to add that it wasn't interest in sound sampling (in the musical sense) that provided the driving force for the mathematical research.

Physicists, instrumental chemists, and many others scientists have been interested in the ins and outs of continuous waveform sampling for a long time. In recent years research into radar signal processing, ultrasound and sonar signal processing, image processing (robot vision and so on), broken signal recovery techniques and even speech recognition have all involved the mathematics of sampling continuous waveforms.

Therefore when low-cost sound sampling took off, all manner of generalised results and theorems were available for re-application. The one you hear mentioned the most, the Nyquist theorem, provides the basic relationship between the spectrums of continuous and discrete time signals.



The Nyquist theorem does, incidentally, work fine for pure sine wave type sounds.

The Nyquist sampling criterion relates characteristics of a sample to those of its original waveform. In fact the general Nyquist criteria is obtained by taking a mathematical representation of a signal's frequency spectrum and applying some quite complicated Fourier transform mathematics.

The result is a relationship which, though it can be stated in many ways, essentially says this: A continuous time waveform, when sampled at a frequency greater than twice the maximum frequency component in its spectrum, can be reconstructed completely from the sampled waveform. This is often (wrongly) taken to imply that if you are sampling a sound with a frequency of, say, 2KHz you need to collect your sample at a frequency of at least twice this, ie 4KHz, to get decent results. In real-life things are not quite so simple.

The snag

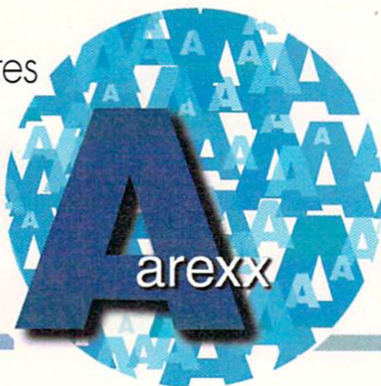
Suppose you wanted to take a sample of the open sixth (E) string of a guitar. With a normally tuned guitar this string has a frequency of about 82.4Hz and, according to the Nyquist relationship, you would actually expect that a sampling rate of 165 samples per second (or as near above that figure as your sampler can get) would be fine. In practice, these sorts of predicted sampling rates lead to samples that, soundwise, are a complete and utter dead loss!

Why? Because when you hit something like a guitar string you don't just get the fundamental note frequency, you get a whole range of other frequencies produced. These harmonics (sometimes called overtones) can include frequencies which are a factor of ten or more higher than the main note. Harmonics affect the timbre of the note and are in fact what make the characteristic sounds of a particular note a guitar different from that of an oboe, harpsichord or other instrument. Anyone thinking they can get away with low sampling frequencies, just because they are sampling sounds that have a low fundamental tone frequency, are in for a nasty surprise.

The Nyquist relationship tells you that you must use a sampling frequency at least twice the frequency of the highest frequency component present in the original waveform. The Nyquist relationship, as a practical tool for estimating sampling frequencies is effectively useless because you can never really be sure of the frequencies present in the harmonics of a particular musical instrument!

The Nyquist theorem does however tell us something that is qualitatively useful – it suggests that when things start going astray it is the higher frequency information which is lost first. This in turn suggests that when checking the sampling quality of guitar note, for example, we should be listening not to the fundamental note but for the presence, or absence, of those all-important harmonics that give the note its sparkle. The only real solution then is to forget any ideas of calculating sample rates and so forth, and do what musicians have always done - listen to the sounds and let your ear tell you whether you have a good sample or not!

Paul Overaa illustrates a use of ARexx for Amiga users whose interests lie in music & Midi sequencing



ARexx and the Amiga's Serial Device

On the face of it, ARexx and Midi are a rather unlikely combination. The very fact that ARexx is an interpreted language means ARexx script execution is relatively slow making it far from ideal for writing Midi programs. And it's true - no one in their right mind would think seriously about writing a fully-fledged Midi utility using ARexx!

This does not mean, however, that ARexx is unsuitable for all Midi applications. It is perfectly feasible to create small Midi diagnostic utilities, scripts that allow you to deliver Midi clock messages and so on and, best of all, these types of things are not difficult to do once you understand some of the ARexx/Midi ground rules.

In order to transmit or receive Midi information you must firstly set up the Amiga's serial device. ARexx, unlike languages like Basic, doesn't have any built in instructions for controlling serial port characteristics so you have to dive into your Workbench and use the serial Preferences editor. Select 8 bits+1 stop bit transmission at a Baud rate of 31250, with no handshaking and no parity and then save the settings to disk.

Once the serial device has been properly configured, AmigaDOS provides two high-level serial device handlers that can then be easily used from ARexx - SER: provides a stream-oriented, buffered, interface whilst AUX: gives unbuffered serial I/O (in other words Midi information will be transmitted immediately you write it to AUX:). If you want to use the AUX: handler you must ensure it is up and running - on new Amigas you just drag the AUX icon from the Storage/DOSDrivers drawer to the WBStartup drawer. The AUX: device will then be available from the time you switch on your machine.

Message transmission

The actual Midi message transmission and reception issues are reasonably straightforward because both SER: and AUX: serial device handlers are treated just like conventional disk files. For example, to open the AUX: device this sort of coding arrangement could be used:

```
if Open(1,'aux:','w')) then
do
/* serial device now open! */
end
```

For transmitting bytes of Midi information you don't get a choice - the character-based Writech() function must be used. If you try to use the line-oriented Writeln() routine things will fall to pieces because this latter function generates a terminal linefeed character whenever data is transmitted. To transmit a message

```
F1
1:> rx checkclocks.rexx
clock found
clock found
clock found
clock found
clock found
clock found
clock found
clock found
clock found
```

A simple midi collection loop in action

you've placed in a variable called midi_message you would use a statement such as:

```
call Writech(1,midi_message)
```

As an example, suppose you wished to create a program change 1 message on Midi channel 1. Internally Midi channels 1-16 are represented by the numbers 0-15 and the 128 program change settings by 0-127. Since program change messages on channel n have a status byte Cn hex followed by the program change setting, we therefore need to transmit C0 hex followed by a zero byte. This string could be defined using the ARexx concatenation operator (||) like this...

```
midi_message='C0'x||'00'x
```

Put all these ideas together and you end up with a short script shown in listing 1 that opens the serial device and transmits the required message.

Collection Loops

The ARexx Readch() function needs to be used for reading incoming Midi data and this requires both a file handle and the number of bytes to be read. In this case, since you'd not normally know how much Midi information was going to appear at the serial port, you'd need to loop-read incoming Midi data one byte at a time. Listing two gives some skeleton example code and notice incidentally, how we force entry into the collection loop by setting an exit flag variable to zero and using the ARexx logical NOT (~) operator to 'invert' the sense of the do-while conditional test!

It must be said that midi message collection, since it normally involves both collection of bytes and the identification of status byte values, is always the more difficult task as far as ARexx scripts are concerned (this however is purely a speed thing - you'll find that it's difficult for the loop to keep up with incoming data).

Least worth a try

OK, so on the collection side you might hit a few snags but if you're into Midi there's little to lose by experimenting (other than some of your time). Those of you who take an interest in things like Midi sysex message creation and so on will also find that practice in transmitting and receiving simple sysex messages is a great way to come to terms with hexadecimal number conversion.

```
/* prog_change.rexx */
if (Open(1,'aux:','w')) then
do
midi_message='C0'x||'00'x
call Writech(1,midi_message)
call Close(1)
end
```

Listing 1: A nice easy program change message transmission example

```
/* byte_collection.rexx */
exit_flag=0
if (Open(1,'ser:','r')) then
do
do while ~exit_flag
byte=Readch(1,1)
say 'Midi byte collected'
/* ie do something with byte */
/* and set exit flag when finished */
/* with loop collection */
end
call Close(1)
end
```

Listing 2: A typical Midi message collection loop

Paul Overaa continues development of his date stamping utility



StampOnIT! Part 2

For anyone who missed the first instalment here's a brief recap of the story so far. For this particular project we're creating a utility that can identify all files in a selected directory and build an additional set of files that hold extracted date stamp information in ASCII form. As a framework for the utility I've chosen to use the skeleton Intuition code, originally provided on the February issue coverdisk and, last month, a directory handling routine was added to this that locked a user-specified drawer and looped through all the entries present.

Collecting the file information is reasonably straightforward and, having performed an initial Examine() on the directory itself, details of individual files are obtained from a FileInfoBlock structure that is being modified as successive calls are made to the DOS library's ExNext() function. Within the FileInfoBlock there's a field called fib_FileName which holds the filename and another called fib_DateStamp which contains the date stamp information. Our task this month is simply to extract and store copies of these items in readiness for creating the date stamp files themselves.

You might, at this stage, be asking why we don't just create the date stamp files during the initial directory searching loop. The reason is that any date stamp files created would then also be detected by the ExNext() calls being made - and this would result in the file searching loop then picking up those new file entries as well. Needless to say, this is something we definitely do not want to happen!

Buffer creation

For filename and datestamp storage I've opted for setting up static buffer areas with space for 100 files (an arbitrary value but one I thought would cope with most potential applications). Although a maximum of only 30 of the 108 characters available for a filename in the FileInfoBlock are

```
STRUCTURE DateStamp,0
LONG        ds_Days      Number of days since
1.1.78
LONG        ds_Minute    Minutes past midnight
LONG        ds_Tick      Ticks past minute
LABEL       ds_SIZEOF
```

Listing 1: Within the FileInfoBlock date stamps are stored using this internal form

ever used, I've chosen to copy 32 bytes of each entry and have therefore set up the filenames buffer like this:

```
filenames ds.b        100*32
```

which allows this long-word copying loop to be used...

```
        lea     fib_FileName(a2),a6
filename pointer
        moveq   #8-1,d0          long word
count-1
.loop2  move.l  (a6)+,(a3)+
        dbra    d0,.loop2
```

This isn't an earth shattering improvement but it is quicker than copying 30 bytes individually. The same approach, incidentally, has been used with the date stamps and, since the size of the DateStamp structure size is available as the system constant ds_SIZEOF (see listing 1 for structure details), I've defined the datestamps buffer using...

```
datestampsds.b        100*ds_SIZEOF
```

and copied each date stamp using...

```
        lea     fib_DateStamp(a2),a6filename
pointer
        moveq   #(ds_SIZEOF/4)-1,d0 long word
count-1
.loop3  move.l  (a6)+,(a4)+
        dbra    d0,.loop3
```

All these copying operations occur within the main directory examining loop and, by incrementing a count variable (filename_count), it's possible to keep track of the number of files that have been dealt with. This count can then be used with more loop code in order to process the individual pairs of filename/datestamp entries and the framework for this section of the code can be found in listing 2.

Healthy pessimism

Any low-level coder who tells you they never get things wrong ain't to be believed. Silly slips are all too easy to make and because of this, I'm a firm believer in always ensuring that some sort of visible output is available during development. A few well placed temporary routines are usually all that's necessary to keep you alert to anything strange your code might be doing.

For this particular application it's obviously useful to know that files present in the chosen drawer are being correctly identified and one check is to print the filenames which are copied to the filename buffer.

What I've done with this month's code then is to modify the IntuiText print routines so filenames appear briefly on the screen as the filename buffer contents are examined. It is easy enough to do - the filename is displayed using PrintIText(), then a small delay is produced using the DOS library's Delay() function, then we remove the filename by re-displaying using the screen's background colour.

Listing 3 shows the type of print routine changes that have been made and when you experiment with the latest version (code and source for these are on the coverdisk) you will indeed see that the correct filenames are displayed. This of course is pretty fair confirmation that we're now able to choose a drawer, fill up buffers with the required pieces of file information - and properly extract those items!

Before creating the new files for holding date stamp information we need to convert the date stamp info into text form. This can be done from the same loop that is displaying the filenames and if you look back at listing 2 you'll see that I have in fact included a dummy ConvertDate reference within this loop. Needless to say the task next month is to expand this area of the code so this conversion process actually occurs.

```
ConvertDates    lea         filenames,a0
                lea         datestamps,a1
                lea         itext3,a3
                lea         itext4,a4
                move.w      filename_count,d0
                subq        #1,d0
.loop4          move.l      a0,it_IText(a3)
                move.l      a0,it_IText(a4)
                jsr         PrintFileName       print
details
                adda.l      #32,a0
                adda.l      #ds_SIZEOF,a1
                jsr         ConvertDate
                dbra        d0,.loop4
                rts
; ----------------------------------------------------------------
ConvertDate     rts
; ----------------------------------------------------------------
```

Listing 2: Once the filename and date stamp details have been collected this loop code processes the individual entries

```
PrintFileName movem.l  d0-d1/a0-a1,-(a7)     preserve registers
              moveq    #0,d0
              moveq    #0,d1
              move.l   window_p,a0
              move.l   wd_RPort(a0),a0       window's rastport
              lea      itext3,a1
              CALLSYS  PrintIText,_IntuitionBase
              move.l   #10,d1
              CALLSYS  Delay,_DOSBase
              jsr      ClearFileName
              movem.l  (a7)+,d0-d1/a0-a1     restore registers
              rts
```

Listing 3: Intuitext based routines like these are being used to display both the selected drawer and the files found

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